

SEQUENCE LISTING

SEQ ID	NMB	Sequence
1	0010	MAFLKLTQENVQGKTVLIRADMNVPFKDGKISDDTRIRASLASIKYCVDNASVIMVTHLGRPTEGEFHPEDDVAP VAHLGSLGKDVKVLNDWRENKPALNAGDVVMLQNVRIKNGEKKNDLELGKAYASLCDVFVNDAGFTAHRQAOST EAVAQAAPVACAGVLMAGELDALGKALKQPARPMVAIVAGSKVSTKLTIIESLADKVDQLIVGGGIANTFLLAEGK AIGKSLAEHDLVEESKKIMAKMAAGGSVPLPTDVVAKAFAADAEAVVKDIAADAEAVVKDIADVADEMILDIG PKSAAALADLLKAAGTVVWNGPVGVEFDQFAGGKTALAEALQSKAFSAGGGDTLAAIAKFGVTEQIGYISTGG GAFLEFLEGKELPAVALEKRG
2	0018	MNTLQKGFTLIELMIVIAIVGILAAVALPAYQDYTARAQVSEAILLAEGQKSATVEYYLNGHEWPGNNTSAGVATS SEIKGKYVKSVEVKNGVVTQAQMASSNVNNEIKGKLSLWAKRQNGSVKWFQGPVTRDKAKAANDDVTAANAANGK KIDTKHLPSTCRDASDAS
3	0030	MTRKILVTSALPYANGSIHLGHMVEHIQTDVWVRFQKLRGHACHYCCADDTHGTPVMLAAQKQGIAPEDMIAKRE EHLADFTGFFIGYDNYISTHSPENKQFSQDIYRALKANGKIESRVIEQLDPEKQMFDPFRVKGECPCCHAQDQY GDNCEVCGTYSPTTELINPYSAVSGTKPELRESEHFFKLGECADFLKAWTSGNPNHDKGPHLOAEALNMKEWL EGEFLLSDWDISRDAPYFGFEIPDAPGKYFYVWLDAPVGYMASFKNLCDRIGVDFDEYFKADSQTEMYHFIGDI LYFHALFWPAMLFHSGHRAPICTWANGELTVDGOKMSKSRGTFITAKSYLEQGLNPEWMRYIIAALNSKIEDIDL NLQDFISRVNSDLVGKYVNIARASGFIKRFEGRLKDVADSETMAKLEOSEATAEYEGREYAKALRDMALAD IVNEYVDANKPWELAKQEGQDERLHEVCSELINAFMTLAYLAPVLPQTAANAALFLNLEAITWANTRDTECKHAI NKYEHLNQRVEQKQVDDLIANKQSIAAAAAPAAEEGKYKVAEQASFDDFMKIDMRVAKVLNCEAVEGSTKLLKF DLDFGFEKRIIFSGIAASYPNPAELNGRMVIAVANFAPRKMAKFGVSEGMILSAATADGKLKLLDVTGAQPGDKV G
4	0038	MPQNTLNIIVLAAGKTRMYSKMPKVLHRIKGPVGRVIDTAAALNPQNICVVIHGKEQVLDTVKRDVVWEQT EQLGTGHAVKTALPHLSAEGRTLVLVYGDVPLIDVETLETLLEAAGNEVGLLTDVPNDPTGLGRIIRDSNGSVTAIV EEKDADAVQKAVKEINTGILVLPNAKLENWLSLSSNNAQGEYLTDLIAKAVADGKIVHPVQVRASHLAAGVNNK LQLETERIFQTEQAQELLKAGVTLRDPARFDLRGLKHGQDVVIDVNCIFEGDIELGNVEIGANCVIKNAKIGA NSKIAPFSHLESCEVGNNRIGPYARLRPQARLADDVHVGNFVEIKNAAIGKGTKANHLTYIGDAEVGCKTNFGAG TIIANYDGVHKKHTVIGDEVIRIGSNVCLVAPVTLGNKVTTGAGSTITRNVEDNKLALARARQTVIEGWRPEKDKQ
5	0045	MFSFRRKKKQETPALEEAQIQETAAKAESELAQIVENIKEDAESLAESVKGQVESAVETVSGAVEQVKETVAEML SEAEAEAEKAAEQVEAAKEAVAETVGEAVGQVEAVATTEEHKLGWAARLKQGLTKSRDKMAKSLAGVFGGGQIDE DLYEELETVLITSDMGMEATEYLMKDVRDRVSLKGLKDGNELRGALKEALYDLIKPLEKPLVLPETKEPFVIMLAG INGAGKTTSIGKLAKYFQAQGSVLLAAGDTFRAAREQLQAWGERNNVTVISQTTGDSAAVCFDAVQAAKARGID IVLADTAGRLPTQLHLMEEIKKVRVLQKAMPDAPHEIIVVLDANIGQNAVNVQKAFDDALGLTGLIVTKLDGTAK GGILAAALASDRPVPVRYIGVGEIGIDLRPFDAFAVDALLD
6	0051	MNTDNLHDIIDEMVQVYSQKQSRSETPAEIGAHHPLLDRLCETAEAQNASDILISKGFPPSLKINSALTPOPOK ALTGEETAIAAASTMNAEQSEIFRRDGEINYSVQSRSGTRYRANAYHSQGSAGLVLRRIINHVIPOMQELGLPEKLE DLAVAPRGLLIIVGPTGSGKSTTMATMLEHRNKLTPSHIVTIEDPIEFYKPRRCIFTQREIGVDTINWQTAVQNA MRQSPDVVICIGEVRSRESMEYAMQLAQTGHLICIFTLHANTAPQSLERILNFYKPEQHNQILIDIALNLGTIICQL ALKQDKTGRATAVVDLLINTPAIQDFILKGLDMNISKIMETAKTDMQTMQNLFELYRHGIIISYEALRQSVSANN LRLHIQLHKEGKTPELLYDRVNGNLIS
7	0052	MQITDLLAFGAKNKASDLHLSSGISPMIRVHGMRRINLPMSAAEEVGNMVTSMNDHQKRIYQONLEVDFSLEP NVARFRVNAFNIGRGAAPVFTIPSTVLSLEELKAPSIQKIAESPRGMVLVTGPTGSGKSTTLAAMINYINETQP AHILTIEDPIEFVHQSKSLINQRELHQHTLSFANALRSALREDPDVILVGEMRDPETIGLALTAETGHLVFGTL HTTGAAKTVDRIVDFPAGEKEMVRSMLESSTAVISQNLKTHDGNRGRVASHEILIANPAVRNLIRENKITQINS VLQGTQASGMQTMQSLQSLVRQGLIAPEVARRAQNSESMSF
8	0068	MQNNNEFKIGNRSVGNHEPLICEIGINHEGSLKTAFAEMVDAAYNAGAEVVKHQTHIVEDEMSDEAKQVPIGNAD VSIYEIMERCALNEEDEIKLKEYVESKGMIFISTPFSRAAALRLQMDIPAYKIGSGECNNYPLIKLVASFGKPII LSTGMNSIESIKSVEIIREAGVPYALLHCTNIYPTYEDVRLGGMNDLSEAFPDAIIGLSDHTLDNYACLGAVAL GGSILERHFTDRMDRPGPDIVCSMNPDTEKELKQGAHALKLARGGKKDTIIAGEKPTKDFAFASVVADKIKKGL LSGDNLVWKRPGNGDFSVNEYETLFQKVAACNIRKGAQIKKTDIE
9	0089	MNQTSRDLTRISHNTKIVATLGPSSNNVELLEDMIRVGGNLNVVRFNFHSGTPEFHQENALIVREAAKRAQOEIAII ADLQGPKIRVGKIAAGGIELNKGETLVLDAALEGEGTREAVGLDYRDLDDVAAGDVWLDDGLLTLTVESVEGSR IITRVENSHVLKSNKGINKRGGLSAGALTEKDFDLKTAIAIGCDYLAI SFVKSADLHIAKRAKVEEEMKGSTAV RPGLVSKIERVEAIENLDEIILAGDGIMVARGDLAVEVGHAAPALQKRMIRARELRRESITATQMME SMITNPV PTRAEVS DVANAVLDGTDVMCSAETAVGAYPFETVSQMAIICAAAEKEQDSLNGVAEQVEYPEAVSTNLAVAGGA VSVARAVHAKAIVALTESGSTAFEISRHNITLPIFALTPSVSAQRRMAMRYGVRPLILATSTDHDTALNEVETMLV EHNILHSGDQYIITSGSQMRESGSGTNTLEVLRVK
10	0109	MLKCGTFFITRHI PRGCRREFQPNQARQTEIYQIRGTVMQRRITLLCAAGMAFSTQTLAANLEVRPNAPERYTVK

		QGDTLWGISGKYLSPWQWGRLDANRDQIHNPDLIYPDQVVLVRHVDGEPRLGLEQTDGIPVVKMSPDKEVSGYG IPADVNFYRIFMRHPQIVSRKETAAPRLSSGPEGRLTYTKGTRVYTKGLKEPGRYLTYRINKNITDPDTGKFLG QEVAFSGIVRSLDYTDVLEQSRKQAGERPKDNEYHTRTHPLITPLRTPSIQPLVVETAISEIQQGDYLMKMPEDT DRFNMPHEPSRPVQAKIVSVFEGTRIAGQFQITITDKGEADGLDKGTVLSLYKRKKTMOVDLSNNFKSRDTEVELI STPAEEVGLAMVYRTSEHLSSAIILENISDISVGDTAANPGRDLNIPDQGRSRVKFGFNRE
11	0115	MRSSDILIVDDEIGIRDLLSEILQDEGYSVALAENAEARKLRHQARPAMVLLDIWMPDCDGITLLKEWAKNGQLN MPVVMMSGHASIDTAVEATKIGAI DFLEKPI SLOKLLSAVENALKYGAQTETGPVDFKLNSAAIQEMNREVGAA VKCASPVLLTGEAGSPFETVARYFHKNCTPWVSPARVEYLIDMPMELLQKAEGGVLYVGDIAQYSRNIQAGIAFTV GKAEHRRVRVVASGSRAAGSDGIACEEKLAELESVVRIPPLRMQHEDIPFLIQGIACNVAESQKIAPASFSEEA LAALTRYDWPNGFDQLQSVVATLLLEADGQEI GAGAVSSLLGQNVPAEGAEDMVGGFNFNLPLRELREEVERRYFE YHIAQEQNMSQVAQKVGLERLTHLYRKLKQLGIGVSRRAGEKTEE
12	0124	MAKEKERSKPHVNVGTIGHVDHGKTLTALTTILAKKFGGAAYDQIDNAPEEKARGITINTSHVEYETETRH YAHVDCPGHADYVKNMITGAAQMDGAILVCSAADGMPQTREHILLARQVGVPYIIVFMNKCMDVDAELLELVEM EIRDLLSSYDFPGDDCPIVQGSALKALEGDAAYEEKIFELAAALDSYIPTPERAVDKPFLPIEDVFSISGRGTVV TGRVERGIIHVGEIEIVGLKETQKTCTGVEMFRKLLDEGOAGDNVGVLLRGTKREDVERGOVLAKPGTITPHTK FKAEEVYVLSKEEGGRHTPFANYRPOFYFRTTDTVTGAVTLEEGVEMVMPGENVTITVELIAPAMEEGLRFAIREG GRTVGAGVVSSVIA
13	0126	MSKKWYVVQAYSGFENQVRIEERAREEMGDYFGQILVPVEKVVDIRNGRKTISERKSYPGYVLVEMEMTDDSW HLVKSTPRVSGFIGGRANRPTISQREAEIILQQVQTGIEKPKPKVEFEVGOQVRVNEGPFADFGVVEEVNERN KLRSVQIFGRETPVELEFSQVEKIN
14	0128	MAKVSRLKALRSSVEANKLYAIDEAIALVKAATAKFDSEVDVSFNLGVDPRKSDQVIRGSVVLPGTKGKITRVA VFTQGANAEAAKEAGADIVGFEDLAAEIKAGNLNFDVVIASPDAMRIVGQLGTILGPRGLMPNPKVGTVPNVAEA VKNAKAGQVQYRTDKAGIVHATIGRASFAEADLKENFDALLDAIVKAKPAAKQYLKKAVALSSMTGLGIRVDTSS VNN
15	0130	MSLNIETKKVAVEEISAAIANAQTLVVAEYRGISVSSMTELARANARKEGVYLRVLKNTLARRAVQGSFAELADQM VGPLVYAASEDAVAAKVLHQFAKKDDKIVKAGSYNGEVMNAAQVAELASIPREELLSKLLFVMQAPVSGFARG LAALAEKKAGEEAA
16	0131	MAITKEDILEAVGSLTVMELNDLVKAFEEKFGVSAAAVAVAGPAGAGADAEEKTEFDVVLASAGDQKVGVIKVVR AITGLGLKEAKDIVDGAPKTIKEGVSKAEAEIQKQLEAGAKVEIK
17	0132	MCMNYSFTEKKRIRKSFARENVLVFPFLATQIDSYAKFLOENAFDKRTDDGLQAAFNISFPIVSHNGYARLEF VHYTLGEPLFDIPECQLRGITYAAPLRARIRLVILDKASKPTVKEVRENEVMGEIPLMTPSGSFVINGTERVIV SQLHRSPGVFFEHDKGTHSSGKLLFSARIIPYRGSWLDFEFDPKDLLYFRIDRRRKMPVTILLKALGYNNEQILD IFYDKETFFYSSNGVQTDLVADRLKGETAKVDILDKENVLVAKGKRITAKNIRDITNAGLTRLDVEPESLLGKAL AADLIDSETGEVLASANDEITEELLAKFDINGVKEITTYINELDQGAYISNTLRTDETAGRQAARVAIYRMMRPG EPPTEEAVEQLFNRLFFSEDSYDLRSVRGMKFNTRYEQKLSAQONSQWYGRLLNETFAGAADKGGYVLSVEDIVA SIATLVELRNHGEVDDIDHGNRRVRSVGELTENQFRSGLARVERAVKERLNOAESNLMPHDLINAKPVSAAIK EFFGSSQLSQFMDQTNPLSEVTHKRRVSALGPGLTRERAGFEVRDVHPTHYGRVCPETPEGPNIGLINSLSVYA RTNDYGFLETPYRRVIDGKVTEEIDYLSAIEEGRYVIAQANADLSDGNLIGDLVTCEKGETIMATPDRVQYMDN ATGQVVSVAASLIPFLEHDDANRALMGANMQRAVPCLRPEKPMVGTGIERSVAVDSATAIVARRGGVVEYVDANR VVIHVHDEATAGEVGVDIYNLVKFRSNQSTNINQRPVAKAGDVLQRGDLVADGASTDFGELALGQNMNTIAFMPW NGYNYEDSILISEKVAADDRYTSIHIEELNVVARDTKLGAEDITRDI PNLSERMQNRLDESIGIVYIGAEVEAGDVL VGKVT PKGETQLTPEEKLLRAIFGEKASDVKDTSLRMTGMSGTVIDVQVFTREGIQRDKRAQSIIDSELKRYRLD LNDQLRIFDNDADFRIERMIVGQKANGGPMKLAGSEITTEYLAGLPSRHDWFDIRLTDEDLAKQLELIKVSLOQK REEADELYEIKKKKLTQGDDELQPGVQKMKVVFIAIKRRLQAGDKMAGRHNKGVSRIPLVEDMPPYADGRPVDIV LNPLGVPSRMNIGQILEVHLGWAAGGIGERIDRMLKEQRKAGELREFLNRLYNGSGKKEDLDALDEEIIELASNL RKGASFASPVFDGAKSEIREMLNLAYPSDDPEVEKLGFNDSTQITLYDGRSGEAFDRKVTVGMVHYLKLHLVD EKM HARSTGPYSLVTQOPLGKAQFGGQRFGEVMEVWALEAYGAAYTLQEMLT VKSDVDVNGRTKMYENIVKGEHKID AGMPESFNVLVKEIRSLGLDIDLERY
18	0133	MNLLNLFNPLQTAGMEEFDAIKIGIASPETIRSWSYGEVKKPETINRYTFKPERDGLFCAKIFGPVKDYECLOGK YKRLKFKGVTCEKCGVEVTL SKVRRERMGHI ELAAPVAHIWFLKSLPSRLGMVLDMLTRDIERVLVFEAFVVTDPG MTPLQRRQLLTEDDYNNKLDYEGDDFADKMAEGIRELLRTLNVAAGEIEILRQLESTGSDTKIKKIAKRLKVLEA FHRSGMKLEWMIMDVLPVLPDLRLVLPDGGRFATSDNLNLYRRVINRNNRLKRLLELHAPDIIVRNEKRLQEA VDSLLDNGRRGKAMTGANKRPLKSLADMICKGGRFRQNLGKRVDSGRSVITVGPYLRHLHQCGLPKKMALELFK PFIHFKLEKQGLASTVKAACKLVEQEVPEVWDILEEVI REHPIMLNRAPTLHRLGIQAFEPILIEGKAIQLHPLVC AAFNADFDGQMAVHVPLSLEAQMEARTLMLASNNVLS PANGEPIIVPSQDIVLGLYMYTRDRINAKGEGSLFADV KEVHRAYHTKQVELGTKITVRLREWVKNEAGEFEPVNNRYETTVGRALLSEILPKGLPFYEVNKKALKKKEISKLIN ASFRLCGLRDTVIFADHLMYTGFGFAAKGGISIAVDDMEIPKEKAALLAEANA EVKEIEDQYRQGLVTNGERYNKV VDIWRAGDKIAKAMMDNLSKQKVIDRAGNEVDQESFNSIYMMADSGARGSAQIKQLSGMRGLMAKPDGSIETP ITSNFRGLTVLQYFIATHGARKGLADTALKTANSYGLTRRLVDVTQDLVVVEDDCGTSDFVMKAVVQGGDVIEA

		LRDRILGRVTASDVDPSSGETLVEAGTLLTEKLVDMDQSGVDEVKVRTPITCKTRHGLCAHCYGRDLARGKLVN AGEAVGVIAAQSIGEPGTQLTMRTHIGGAASRAAAASQVEAKSNGTARFSSQMRVYANNKGELVVIIGRSCEVVIH DDIGRERERHKVPYGAILLVQDGMALIKAGOTLATWDPHTRPMITEHAGMVKFENVEEGVTVAQTDDVTGLSTLVV IDGKRSSSSASKLLRPVTKLLDENGVEICIPGTSTPVSMAFPVAVITVREGQEIKGKDVILARIPOASSKTRDITG GLPRVAELFEARVPKDAGMLAETGTVSFGKETKGKQRLIVTDVDGVAYETLISKEKQILVHDGQVVRGETIVDG AVDPHDILRLQIEALARYIVQEVQEVYRLQGVKISDKHIEVIRQMLRRVNIADAGETGFTTGEQVERGDVMAAN EKALEEGKEPARYENVLLGITKASLSTDSFISAASFQETTRVLTEAAIMGKQDELRLKENVIVGRIPAGTGLTY HRSRHQQWQVEQEETAETQVTDE
19	0137	MPPRRREVPKRDLVDPDKFGSVELTKFMNVLMDGKKSVARIVYGALEQIEKKTGKVAIEVFNEAIAANAKPIVEVK SRRVGGANYQVPVEVRPSRRLALAMRWVRDAARKRGEKSMDLRLAGELIDASEGRGALKKKEEVHRMAEANKAFS HFRF
20	0138	MARKTPISLYRNIGISAHIDAGKTTTTERILFYTLGTHLKEVHDGAATTDYMEQEQRGITITSAAVTSYWSGMA KQFPEHRFNIIDTPGHVDFTEVERSMRVLGDGAVMVYCAVGGVQPOSETVWRQANKYQVPRLAFVNKMDRQGANFF RVVEQMKTRLRANPVPIVIPGAEDNFGSVVLLKMKSIWNEVDKGTTFYTDI PAELVETAEWRQNMIEAAAE ASEELMDKYLGGDELTEEEIVGALRQRTLAGEIQPMLCGSAFKNKGVRMLDAVELLPAPTDIPPVQGVNPNTTEE ADSRQASDEEKFSALAFKMLNDKYVQGLTFIRVYSGVVKSGDTVLNSVKGTRERIGRLVQMTAADRTEIEEVRAGD IAAAIGLKDVTTGETLCAESAPIILERMEFPPEVHIHIAVEPKTKADQEKMGIALNLAKEDPSFRVRTDEESQGTI ISGMGELHLEIIVDRMKREFGVEANIGAPQVAYRETIRKAVKAEYKHAKQSGGKGQYGHVVIEMEPMEPGEGYEF IDEIKGGVIPREFIPSVDKGIRDTLPNGIVAGYPVVDVRIRLVFGSYHVDSSQLAFELAASQAFKEGMRQASPAL LEPIMAVEVEPPEEYMGDVMDLNRNRGVVLMDDDGIGGKVRVRAEVPLAEMFGYSTDLRSATQGRATYSMEFKKY SEAPAHIAAAVTEARKG
21	0140	MANQKIRIRLKAYDYALIDRSAQEIVETAKRTGAVVKGPIPLPTKIERFNILRSPHVNKTSREQLEIRTHLRMLDI VDWTDKTTDALMKLDLPAGVDVEIKVQ
22	0142	MTLGLVGRKVGMRVDFDEQGVSVPTVLDMSANRVTQVKS KDTDGYTAVQVTFGQKKANRVNKAEGHFAKAGVEA GRGLIEFALTEEKLAELKAGDEITVSMFEVQGLVDVTGTSKGKGSFGTIKRHNFGAQTSHGNSRSRHRVPGSIGMA QDPGRVFPGRMAGQYGNKTATVQKLEVVVRDAERQLLVKGAVPGAVNSDVVVRPSVKVGA
23	0143	MELKVIDAKGVQSGSLSVSDALFAREYNEALVHQLVNAVLANARSGNRAQKTRAEVKHSTKKPWRQKGTGRARSGM TSSPLWRKGGRAFPNKPDENFTQKVNRMKMYRAGMATILSQLTRDERLFAIEALTAETPKTKVFAEQVKNLGLQVL FVTKQLDENVYLASRNLPNVLVLEAQQVDPYSLLRYKKVITTKDAVAQLEEQWV
24	0144	MNQRLTQVILAPIVSEKSNVLAEKRNQMTFKVLANATKPEIKAAVELLFGVQVADVTTVTIKGKVKRFGRTLGR SDVKKAYVSLAAGQELDLEAAAAADKE
25	0154	MARLREFYKETVVPPELVKQFGYKSVMEVPRIEKITLNMVGVEAVADKKVMEHAVSDLEKIAGQKPVVTVARKSIAG FKIRDNYPVGCKVTLRRDQMFELDRILITIALPRVRDFRGVSGKSFDRGNYNMGVREQIIFPEIEYDKIDALRGL NITITTTAKTDEEAKALLSLFKFPFKG
26	0156	MSMHPDISDMLTRIRNAQRANKAAVAMPSSKLKCAIAKVLKEEGYIEDFAVSSDVKSILEIQLKYYAGRPVIEQIK RVSRPGLRIYKASSEIPSVMNGLGIAIVSTSKGVMTDRKARSQGVGCELLCIVA
27	0157	MSRVAKNPVTPAGVEVKFGAEALVIKNGELSFLPHSDVAIEFNDGKLTFFVANNSSQANAMSGTARALVSNMV KGVSEGFELRLQIGVGYRAQAQKILNLSLGFSPHPIVYEMPEGVSVQTPSQTEIVLTGSDKQVVGQVAAEIRAFR APEPYKKGVRVYVGEVVMKEAKKK
28	0159	MAKHEIEERGDGLIEKMAVNRVTQVVKGGRIAMFALTTVVGDGDGRIGMGKGSKEVPVAVQKAMDQARRSMIKV PLKNGTIIHHEVIGRHGATKVFQMFAKEGSGVKAGGPMRLVFDAMGIHNISAKVHGSTNPYINVRATLDGLSKLHTP ADIAAKRGLTVEDILGVNHG
29	0168	MQNSTTEFLKPRQIDVNTFSATRAKVSMPFERGFHTLGNALRRILLSSMNGFAPTEVAIAGVLHEYSTVDGIEQ DVVDILLNKGIVFKLHGRSQVLVLLKSGSGVVSAGDIELPHDVEILNPGHVICHADNGQIEMEIKEVQGRGYQ SVSGRQVVRDENRQIGAIQLDASFSPISRVSFEVEPARVEQRTDLDKLVLDIETDGSIDPEEAVRSAARILIDQMS IFADLQGTPEVEVEEKAPPIDPVLLRPVDDLELTVRSANCLKAEDIYYIGDLIQRTELELLKTPNLGRKSLNEIKE VLASKGLTLGSKLEAWPPVGLEKP
30	0171	MAKIIVVTSGKGVGKTTTSASIAATGLALRGYKTAVIDFDVGLRNLDLIMGCERRVVYDLINVIQGEATLNQALIK DKNCENLFILPASQTRDKDALTREGVEKVMQELSGKKMGFEYIICDSPAGIEQGALMALYFADEAIVTNPVSSV RDSRILGILQSKSHKAEQGGSVKEHLITRYSPEVAKGEMLSVQDICDILHIPPGLVIPESQNVLQASNSGEPV IHQDSVAASEAYKDVIARLLGENREMRFLAEKKSFFKRLFGG
31	0173	MTLTELRYIVAVAQERHFGRAARRCFVSQPTLSIAIKKLEELAVSLFDRSSNDIITEAGERIVAQARKVLEEAE LIRHLANEQNELEGAFKLGLIFTVAPYLLPKLIVSLRRTAPKMLMLEENYTHLTESLKRGDVDAIIVAEPFQE PGIVTEPLYDEFFVIVPKGHSFEELDVA SPRMLGEEQVLLLTEGNCMRDQVLSSCSELAQKRIQGLTNTLQSS INTIRHMVASGLAISVLPATALTENDHMLFSIIPFEGTPPSRVVLAYRRNFVRPKALSAMKAAIMQSOLHGSFI CD
32	0193	MTHMIYPKTYDVIVVGGGHAGTEAALAAARMGAQTLLLSHNIETLGQMSCNPSIGGIGKGLVRELDALGGAMALA

		TDKSGIQFRRLNASKGA AVRATRAQADRI LYKAAI REMLENQENL DLFQOAVEDVTLDGERISGVITAMGVFEKAR AVVLTAGTFLSGKIHIGLENYEGGRAGDPAKSLGGRLRELKLPQGRKTGTTPRIDGRTIDFSQLTEQPGDTPVP VMSVRGNADMHPQVSCWITHTNTQTHDIIRSGFDRSPMFTGKIEGVGPYCPSEDKINRFADKDSHQIFLEPEG LTHEYYPNGISTSLPFDIQIALVRSMKLENAHILRPGYAI EYDYDPNRLKASLETKTIAGLFFAGQINGTTGY EEAAAQGLLAGANAVQYVRGQDPLLRREQAYLGVLVDDLITKGVNEPYRMFTSRAEYRLQLREDNADMRLTEDGY KIGLVSEAQWRMFNEKREAVEREIQRKLTWYTPQKLAEGEQIRVFGQKLSREANLHDLRRPNLDYAALMTLEGA MPSENLSAEVIEQVEIQVYQGYIDRQNEEIDSRRIETLKLDPGIDYGVKGLSAEVQQKLNQHKPETVGOASRI SGVTPAAVALLMVHLKRGFKDAK
33	0196	MKRMLFNATQAEELRVAIVDQGNLLDLDIETLGKEQRKGN IYKGIITRIEPSLEACFVDYGTDRHGFLPFKEVSRS YFQDYEGGRARIQDVLKEGMEVIVQVEKDERGNKGAALTFISLAGRYLVLMPPNNPRGGVSRRIEGEERQELKAA MAELDIPNGMSIARTAGIGRSAAELEWDLNLYLKQLWQAI EAGKAHHDPLYLMESSLLIRAIRDYFRPDIGEIL VDNQEVYDQVAEFMSYVMPGNIGRLKLYEDHTPLFSRFQIEHQIESAFSRSVSLPSSGGAIVIDHTEALVSDVNSA RATRGAIEDTAFKTNMEAAEEVARQMRRLDLGGLVVIDFIDMENPKHQRDVENVLRDALKKDRARVQMGKLSRFG LLELSRQRLKPALGESSHVACPRCAGTGVIRGIES TALHVLRI IQEAMKDNTGEVRAQVPVDVATFLLNEKRAEL FAMEERLDVNVVLI PNHLENPHYEINRI RTDDVEEDGEPSYKRVAEPEEDES AKPFGEKAKAARPEPAVKGVHR TSPAPTAPEKKT SWWDSFKAWLKRI FGGSETQAAPAAETSEKRSTANRSGSRANRRONPRRSKREGSKVEVREV AGTKAQEARADKAETRNNGNRRRNERGDRAERANAEIQSRNVQPAATVADAAPSETEVOTGKRRRNGSR SERG QTAPETATVAETTVQTAENTPSEPHTAEDKSGSKPSERNRRERDSRDAKERRERNQDRRONGKKRNI PSAKIE QYLNHDTADKVSAAAHVFGETDANAPITVS IADPVAERDLPTAS PAVSNGDAPVYDAAEKIRATAAILPEGAT PKAEAQEMPSETATFTAAEQARETAQTGGLVLIETDPAALKAWAAQPEVQAGRGLRRSEQPKPSEVATVPAEEMI QVETRQG
34	0212	MTEQKHEEYGADSIQVLEGLEAVRKRPGMYIGDTQDGSGLHHMVFEVL D NAI DEALAGHCDKITVTI IHADHSVSA DN GRGMPGTGIHPKEGRSAAEVIMTVLHAGGKFDNNSYKISGGLHGVSVVNALSDWVTLTIYRDGKEHFVRVVRG ETEEPLKIVGSDSKGTTVRFLASTETFGNVEYSFDILAKRIRELSFLNNGVDIELTDERDGKHESFALSGGVAGF VQYMNRRKKTPLHEKIFYAFGEKDGMSVECAMQWNSYQESVQCFTNNIPQRDGGHTLTALRQVMTRTINNYIEANE VAKKAKVETAGDDMREGLTCVLSVKLPDPKFSSQTKDKLVSGEIGPVVNEVISQALTD FLEENPNEAKIITGKI VD AARAREAAARKAREITRRKGVM DGLGLPGKLAD CQEKPALSELYLVEGDSAGGSAMQGRDRKFQAILPLKGKILNV EKARFEKMLASQEVATLITAGAGIGKEEFNAEKLRYHRIIMT DADVDGAHIRTLLLTFFYRQMPELVERGYIYI AQPLYKAKYQKERYLKDELEKDQWLLGLALEKAKIISDGR TIEGAELADTAQFLLAKTVIEQESRFVDELVL R AMLHASPIDLTSSENADKAVAE LSGLLDEKEVALERIEGHEGHRFIKITRKLHGNVMVSYIEPKFLNSKAYQTLTQ TAAALKGMVGEKAKLYKGNGYDADS FETALDILMSVAQKMSIQRYKGLGEMNPEQLWETTMDFAVRRLKVRIE DAIAAEV FVTLMGDEVEPRRAFIENNALIAQNIDA
35	0219	MSQRRVITGLGQVSPVGN T VAEAWDTLLTGKSGIGAITRFDTS DINSRVAGEVRGFDIGQYISAKEARRMDVFIH YGIAAALQAIADSGLD DVENLDKDRIGVNI GSGIGLPGIEVTGKAVIEGGARKINPFTIPGSLINLISGHVTILK GYRGPSYGMVSACTTGAAHIGDSLMIKYGDADIMVAGGAEGAISTLGVGGAAMKALSTRND DPATASRPWDKGR DGFVIGEGAGILVLEELEHAKKRGAKIYAEIVGFGMSSDAYHITAPNEEGPALAVTRALKDAGINPEDVDYVNAHG TSTPLGDANETKALKRAFGEHAYKT VVSSTKSMTGHL LGAAGGVEAVYSILAIHDGKIPTTINIFEQDVEAGCDLD YCANEARDAEIDVAISNSFGFGGTNGTLVFKRFKG
36	0246	MAIYQSGVIFDQVDTANPDCWTLDEYVKRGGYTALRKILSENISQTDVIDE VKTSGLRGRGGAGFPTGLKWSFMPR SFPGEKYVVCNTDEGEPGTFKDRDIIMFNPHALIEGMI IAGYAMGAKAGYNYIHGEIFEGYQRFEEALEQARAAGF LGKNILGSDFEFELFAHHGYGAYICGEETALLESEGGKQPRFKPPFPASFGLYGKPTTINNTETFSVPFIIRD GGQAFADKGINAGGKTLFCISGHVERPGNYEVLGTPFAEVLKMAGGMRGKGLKAVIPGGSSAPVLPADIMMQT NMDYDSISKAGSMLGSGAIVMDEDVCMVKALERLSYFYDESCGQCTPCREGTGWLYRIVHRIVEGKGKMEDLDL LDSVGNQ MAGRTICALADA AVFPVRSFTKHFRDEFVHYIEHGGPMKEHKWGGW
37	0286	MNFTRLNLQVLSTVQKKGNTFSDSPLNSFGGALVAGVASMLLNGKNRKTITKIGSTAALGYLARGYQMWQONKG RATVVTQSDFO PAGETEETYSRTVLRTMIAAASDGMIDEAERTIEQESGTD PETAAWLAAEYRLPASIEDIAAAV GNDEALAAEAYLAARLV CADLSRKETVFLARLSQALKLDDNLVESLERQLGF
38	0294	MKLKTLALTSLTLLALAACSKQAETSVPADSAQSSSSAPAPAE LNEG VNYTVLSTPI PQQAGKIEVLEFFGYFC PHCAHLEPVLSEHIKTFKDDTYMRREHVWGD E M KPLARLAAAVEMAGESDKANS HIFDAMVNQKINLADTDTLKK WLSEQTAFDGKKVLA AFEAPESQARAAQMEELTNKFQISGTP TIVVGGKYQVEFKDWQSGMTTIDQLVDKVREEQK KPQ
39	0329	MSVGLLRILVQNVVTVQAEHYNESQAGKEVL PMLFSDGVI SPKSLAALIARVFSYSILDLRHYPRHRVLMGVL TEEQMVFEHCVVFRRGDKVFFAVSDPTQMPQIQKT VSAAGIEVELVIVEDDQLAGLLDWVGSRSSTSLQELGEGQ EEEESH TLYIDNEEAEDGPVPRFIHKTLSDALRSGASDIHFEFYEHNARIRFRVDGQLREVQPP IAVRGQLASRI KVMSRLDISEKRIPQDGRMQLT FQKGGKPVDFRVSTLPTLFGEKVVMRILNSDAASINIDQLGFEPFQKLLLEAI HRPYGMVLVTGTGSGKTVSLYTCNLINLTESVNIATAEDPAEINLPGINQVNVNDKQGLTFAAALKSFLRQDPDI IMVGEIRDLETADIAIKAAQTGHMVSTLHTNNAPATLSRMLNMGVAPFN IASSVSLIMAQRLRLRLCSSCKQEVE RPSASALKEVGFTDEDLAKDWKLYRAVGCDRCRGQYKGRAGVYEVMPISEEMQVRIMNGTEVDILDVAYKEGMV DLRRAGILKVMQGITSL E EVTANTND

40	0335	MSLQNIETAFENRADITPTVTPEVKEAVLETIRQLDSGKLRVAERLGVGEWKNVNEWAKKAVLLSFRIQDNEVLN DGVNKFYDKVPTKFADWSEDEFKNAGFRAVPGAVARRGSFVAKNVVLMPSYVNI GAYVDEGAMVDTWATVGSQAQI GKNVHLSGGVGIGGVLEPLQAAPTIIEDNCFIARSEIVEGVIVEEGSVISMVFIGQSTKIFDRTTGEIYQGRVP AGSVVVSGSMPSKDGSHSLYCAVIVKRVDQTRAKTSVNNELLRGI
41	0336	MGFLQGKKILITGMISERSIAYGIAKACREQGAELFTYVVDKLEERVKMAEELDELVFRCDVASDDEINQVFA DLGKHWDGLDGLVHSIGFAPKEALSGDFLDSISREAFNTAHEISAYS L PALAKAARPMMRGRNSAIVALS YLGAVR AIPNYNVMGMAKASLEAGIRFTAACLGKEGIRCNISAGPIKTLAASGIADFGKLLGHVAAHNPLRRNVTTIEEVGN TAAFLSLDLSSGITGEITYVDGGYSINALSTEG
42	0337	MSRPVPAVFGSVFHSQMPVLAYREGKWQPTQSSQDLSLAPGAHALHYGSECFEGLKAFRQADGKIVLFRPTANI ARMROSADILHLPRPETEAYLDALIKLVKRADEIPDAPAALYLRPTLIGTDPVIGKAGSPSETALLYILASPVGD YFKVGSVPKILVETEHIRCAPHMGRVKCGGNYASAMHWVLKAKAEYGANQVLFPCNGDVQETGASNFILINGDEII TKPLTDEFHGVTRDSVLTVAKDLGYTVSERNFTVDELKAAVENGAEAILTGTAAVISPVTSFVIGGKEIEVKSQE RGYAIRKAITDIQYGLAEDKYGLVEVC
43	0351	MTILSDVKALGQQIWLNDLSRSLVQSGELAQMLKQGVCGVTSNPAIFQKAFAGDALYADEIAALKQQNLSPKQRYE TMAVADVRAACDVCLAHESTGGKTGFVSLEVSPELSKDAQGTVEEARLYAAIGCKNAMIKVPATDAGIDALETL VSDGISVNLTLFSRAQTLKAYAAARGIAKRLAAGQSVAHIQVVASFFISRDVGDALDTLPDHLKGKIALALAKA AYQDWAQYFGSPEFAALETKGANRVQLLWASTGVKNPAYPDTLYVDSLIGAHTVNTVPDATALKAFIDHGTAKATLT EGVEEAQQLAETAALGIDVETLATRLQEDGLKQFEEAFKLLAPLA
44	0359	MSIKNAVKLIEESEARFVDLRTDTKQKHHTVTPARIVLEDPEEFWENGQAFDGSISGGWKGIQASDMQLRPDAS TAFVDPFYDDATVVLTCDDVIDPADGGYDRDPRSIARRAEAYLKSSGIGETAYFGPEPEFFVFDGIEFETDMHKTR YEITSESGAWASGLHMDGQNTGHRPTVKGGYAPVAPIDCGQDLRSAMVNILEELGIEVEVHSEVGTGSQMEIGTR FATLVKRADQTDQMKYVIQVNAHNFQKTATFMPKPIMGDNGSGMHVHQS IWKDGNLFAGDGYAGLSDTALYYIGG IIKHAKALNAITNPSTNSYKRLVPHFEAPTCLAYS AKNRSASIRIPSVNSSKARRI EARPDPPTANPYLAFALLM AGLDGIQNKIHPGDPADKNLYDLPEEDALVPTVCASLEELAAALKADHEFLLRGGVFSKDWIDSYIAFKEEDVRR IRMAPHLEFEMYYSL
45	0382	MTKQLKLSALFVALLASGTAVAGEASVQGYTVSGQSNEIVRNNYGECKWNAFYDKASQGRVECGDAVAPEPEPEP EPAPAPVVVVEQAPQYVDETISLSAKTLFGFDKDSLRAEAQDNLKVLQAQLRSRTNVQSVRVEGHTDFMGSDKYNQA LSERRAYVVANNLVSNGVPVSRI SAVGLGESQAQMTQVCEAEVAKLGAKVSKAKKREALIACIEPDRRVDVKIRSI VTRQVVPANHQQH
46	0390	MYTRIMEISPWTLRS AKLEKEHKRLQESLTS LGNGYMGMRGSFEETYSADSHLGTIYIAGVWFPDKTRVGGWKNQYP KYFGKAINAFNFSVKVIFVDGQEVDLAKNDVAGFSVELDMQHGVLRRSFTVFGVRENVCKFLSVAQKELAVIRWEA VSDGKTHQVRIDSIIDADVKNEDSNYEKFVQVLDKGVSDLSYIAAQTVANPFQVEQFTVNAEQTFAGSFKALG GSQTDWQVNSNFESEVGSTPETFEKRVIVTTSRDYQSL EAVKAAGRALSEKIAGVAFETLLDAHKAGWLHRWEIAD VVI EGSD EAOQGI RFNLFQLFSTYYGEDARLNI GPKGFTGEKYGGATYWDTEAYAVPLYLALAEPEVTRNLQYRR NQLPQAQHNAREOGLAGALYPMVTFTGIECHNEWEITFEIHRNGAIPYAIYNYTNTYTGDEGYLAKEGLEVLVEVS RFWADRHFVSKRNGKYMIGHVGTGPNEYENNINNNWYNTLAAWVLDYTREALAKYPRPDLNVRADLEKWDI SAN MYRPHDEELGVFVQHDGFLDKDIRPVSA LSPDDLPLNQKWSWDKILRSPFIKQADVLOGIYFFSDRENI DEKRRNF DFYEEMTVHESSLSPCIHSILAAELGKEEKAVEMYQRTARL DLDNYYNNDTE DGLHITSMTGSWLAIVQGFQMQMTW GGKLSFAPFLPSAWTG YAFHIN YRGRLIKVAVGKENVVFTLLKGESLDLQVYVGKIDITLDGSHTVALEK
47	0391	MTFTAVLFDLDGVITDTAEYHYRAWKKLAEELGISIDRKFNELKGVSRDDSLKRI LAHGKTVSEAEFAELTRRK NDNYVEMI QAVKPEDVYPGILPLLEALRANGKKIALASAKNGPFL LERMGLTHFFDAIADPAVAHASKPAPDIFL AAAEVGDADIRQCIGIEDAAAGVAATKAAGALPIGVGKAEDLGS DIALVSGTAELTYAYLQSVWEQSGR
48	0426	MEQQQRYISVLDIGTSKVLALIGEVQDDKINIVGLGQAPSRGLRAGMVTNIDATVQAIRQAVNDAELMADTKITH VTTGIAGNHIRSLNSQGVVKIKDGEVTQADIDRAIETAKAINIPPDQKILDVAVQDYIIDTQLGVREPIGMSGVRL DTRVHIITGASTAVQNVQKCIERCGLKSDQIMLQPLASQAVLTEDEKDLGVCCVIDIGGGTTDIAVMNGAIRHTS VIPAGGNLITKDLKSLRTPLDAAEYIKIHYGVASCDTEGLGEMIEVPGVGDRTSRQVSSKVLAAIISARIQEIFG VVLGELQKSGFPKEVLNAGIVLTGGVSMMTGIVEFAEKIFDLPVRTGAPQEMGGLSDRVTRPRFSTAIGLLHAACK LEGNLPQPENGAVQEREGGGGLLARLKRWIENSF
49	0427	MEFVYDVAESAVSPAVIKVIGLGGGCGNAINNMVANNVRGVEFISANTDAQSLAKNHA AKRIQLGTNLTRGLGAGA NPDIGRAAAQEDREAEIEAIRGANMLFITTMGGGGTGTGSAPVVAEIAKSLGILTVAVVTRPFAYEGKRVHVAQAG LEQLKEHVDSLIIIPNDKLM TALGEDVTMREAFRAADNVLRDAVAGISEVVTCPSEIINLDFADVKTVMNSRGIAM MGSGYAQGIDRARMATDQAISPLDDVTL DGARGVLVNIITAPGCLKMSSELSEVMKIVNQSAHPDLECKFGAAED ETMSEDAIRITIIATGLKEGAVDFVPAREVEAVAPSKQE QSHNVEGMIRTNRGIRTMNLTAADFNDQSVLDDFEI PAILRRQHNSDK
50	0446	MSQTIDELLLPHRNAIDTIDAEILRLNLNERAQHAHAIGELKGTGAVYRPEREVAVLRRIQDLNKGPLPDESVARLF REVMSACLAVRPLTIAYLGPGTFTQQAIIKHFGHAAHTMACPTIDDCFKQVETROADYL VAPVENSTEGSVGRT LDLLAVTALQACGEIVLRIHNNLLRKNNGSTEGIAKVFSHAQALAQCNWLGRHLPNAERIAVSSNAEAARLVAES DDGTVA AIAGRTAAE IYGLDMVAECIEDEPNNTTRFLVMGHETGASGSDKTS LAVSAPNRA GAVASLLQPLTESG

		ISMTKFESRPSKSVLWEYLFFIDIEGHRRAQIQTALERLGERASFVKVIGSYPTAVL
51	0462	MOAFSLYPPVGHPSAKKRQNRADVFLPFWKQDNFLGKSVQYRFEFAQIYFTMPKPCAGVTMGRGDDFFSNLFHQE SARMKKSVLAVLAALSACGGSEKNAVQPOADAASANAEEAATDTLNIYNWSNYVDESTVEDFKANNLKLTYD LYENNETLEAKMLTGKSGYDLVVPGLAFPRQIEAGAYQKVNKDLPYKNIDPELLKMLETADPGNQYAVPYFSG VNTIAITAKGKELLGGKLPENGWDLLEFKPEYTHKLKSCGIALWDTPEMFPIILNLYLGKDPKGSNPEDLKAAAEVL KSIRPDVKRFSPSII DELARGDICALAGNGGDLNLAKARSEEVKNVGVIEVLTPKGMGFWIESWLIPADAKNVANA HKYINYTLDPETIAAKNGIAVT FAPASKPAREKMPAELVNTRSI FPNQDMKDGFMVPMQSTDAKLSVSLWQKIKV GTN
52	0466	MRTNYCGLISEQYLDQTVTVKGVHRRRDHGGVIFIDLRDREGIVQVVIDPDTPEAFADSSRNEYVLSITGRVR NRPEGTNDKMISGKIEILAKEIEVLNAAATPPFQIDDENISENVRLTNRVIDLRRPVMQRNRLRYQVAMGVRRY LDAQGFIDIEPTMLTRSTPEGARDYLVPSRVHPGEFFALPQSPQLFKQLLMVAGFDRYYQITKCFRDEDLRADROP EFTQIDLETSFLNEDEIMDITEGMAKQVFKDALNVLDGDFPRMPYSEAMFYYSKDKPDMRINLKFTELTDLMKTEE FKVFRGAADMKGGRVVALRVNGAEFSRKEIDEYTKFVGIYGAAGLAYIKVNDVSNLSNGEDSGLQSPVIVKYLSEN ALKEIIARTGAQNGDIIFFGADKAKVVNEAIGALRIKVGLEHGKDNNGYFTDEWKPLWVVDFFMFEYDEEADRYVAV HHPFTAPKEGHEDLMVSDPANCLARAYDMVLNGWEIGGGSIRIHRADVQEKVFAALKISPEEQEKFGLLDNLKF GAPPHGGLAFGLDRLVTLMTGAESIRDVIAFPKTQRAQCCLTNAPNSVDDKQLRELSRLRQKATETKEV
53	0477	MRENKIIFTGPVGVGKTTAIAAISDEALVQTDASASDMLDRKRNTTVAMDYGAISLDEDTKVHLYGTPGQERFNF MWEILSQSGMGLVLLDNARTNPLKDLLEFFLHSFRGLLEKAPVVVGITKMDIRSQPGIDVYHKYLAKHNLNVPVFE IDARKEDDVKQLVSAMLSIDPGLV
54	0530	MTVPHIPRGVPMADIAAFRLTEEEKQRLDPAVGGIILFRRNFONIEQLKTLTAEIKALRTPELI IAVDHEGGRVQ RFIEGFTRLPAMSTLGEIWDKDGASAAETAAGQVGRVLA TELSACGIDLSFTPLVDLDWGNCPVIGNRSFHRNPEA VARLALALQKGLTKGGMKSCGKHFPGHGFEVGDHVLVPEDWRSLSLELTADLAPFRIMSREGMAAVMPAHVVYPQ VDTKPAGFSEIWLKQILRRDIGFKGVI FSDDLTMEGACGAGGKERARISFEAGCDIVLCNRPDLVDELREDFRI PDNPTLAQRWQYMANLTGSAQAQAVMQTADFQAAQAFVAGLASQDPTAGGVKVGAEAF
55	0540	MFFKHIEAAPADPILGLGEAFKAETREKVNLGIGVYKASGATPLVKAVKEAEKRLLSETTKNYLTIDGVADYN AQTQILLFGKDHEIIASRRAKTAQSLGGTGALRIAEEFAKRQLNAQTIWISNPTWPNHNIAKAVGIQDKPYRYD AAKHGLDWDGMIEDLSQAQKGDIVLLHGCCHNPTGIDTPEQWETLAKLSAEKGWLPFLDFAYQGFNGLEEDAYG LRVFLKHNTPELLIASSYSKNFGMYNERVGAFTLVAEDEETAARASHQVKTII RTLYSNPASHGANTIALVLKNDL KAQWIAELDEMRGRIKAMRQKFVGLLKAKGASQNFDFI IKQNGMFSFSGLTPEQVDRKNEFAIYAVRSGRINVAG ITDNNIDYLCESIVKVL
56	0546	MKMQAVVVNKNVAGDVEVIERVPLEYGEALVEVEYCGVCHTDLHVAAGDYGEKPGRVLGHEGIGLVKEVADGVK NLKVGDRVSIAWLFQSCGSCYECNTGRETLCSRVNLNAGYTADGGMATHCIVSADYAVKVPEGLDPAQASSITCAGV TTYKAIKVSGVRPGQWIAIYGAGGLGNLGVQYAKKVFAGHVVAIDINDDKLAFKETGADLVVNAEKEDAQKVIQE KTGGAAHAAVTVASAAAFNSAVNCVRAGGRVVAIGLPPESMDLSI PRLVLDGIEVVGSLVGTGRKDLLEAFQFGAEG LVVPKVQLRALDEAPAFQEMREGKITGRMVIDMKKECGCGHHH
57	0564	MEIILGIVMFTVIVLVLALMILFAKSKLVSEGDITIKVNGEKELTMPAGGKLLGALANEGIFIP SACGGGGSCGQC RVVVKSGGGDILPTELSHISKREAREGCRSLSCQVNVKTDMDIEVPEEVFGVKKWECTVISNDNKATFIKELKLAIP EGEEVFPFRAGGYIQIEAPPHTVAYKDFDI PKEYHEDWDKYNLWQYVSKVDEPILRAYSMASYPEEKGIIMLNVRIA TPPPRVDPAPPQMSSYIWSLKPDKVTISGPFGEFFAKDTDAEMVFIGGAGMAPMRSHIFDQLKRLNSKRKITF WYGARSKREMFYVEDFDQLAAEFNFTWHVALSDPLPEDNWDGYTGFIHNVVYENHLKNHEAPEDCEFYMCPPIM NQSVIKMLKDLGVEDENILLDDFGG
58	0589	MNLIQLEQEEIARLNKEIPEFAPGDTVVSVRVVEGTRSRLOAYEGVVIARRNRGLNSNFIVRKISSGEGVERTF QLYSTVEKIEVKRRGDVRRAKLYLRLGLTGKAARIKEKLPARKG
59	0595	MSRVLLVDDALLTELTEYLAEGLNVRVDPGEAGVQEILSGQYDVVVLDSMMPKMNGLDVLKNVRARSTVPII MLTAKGDDIDRIIGLEMGADDYVPKPCPTRELLARINAILLRAQHSGEQNAPNSISVSDVVLPAKROASVKDMP LELTSTEFNLLEVLMRHAGQVVSKEITLSVEALDRKLAKFDRSIDVHISSIRHKLGDASLIQTVRGLGYLFVKV
60	0604	MKAARFYDKGDIRIEDIPEPTVAPGTVGINVAWCIGCTDLHEFMEGPIFIPPCGHPHPISGESAPVTMGHEFSGV VYAVGEGVDDIKVGQHVVEPYI IRDDVPTGEGSNYHLSKDMNFILGCGGGLSEKIAVKRRWVHPISDKIPLDQ AALIEPLSVGHAYVRSGAKEGDVALVGGAGPIGLLLAAVLKAKGIKVIITELSKARKDKARESADVADYILDPSEV DVVAEVKLTNGEGVDVAFFECTSVNKVLDLVEACKPAANLVIVSIWSPATINVHSVVMKELDVGRGTIAYCNDHA ETIKLVEEGKINLEPFITQRIKLDLVSKEGFERLIHNNEASAVKIIVSPNL
61	0610	MLPVRFRVSDGIKRLTPASNQTAHYHFPENPCRYSSFYWSIAIMTATTASSAKPYLKIQLGVKKFGDNYAVDNI LDLIYQHEIFALLGSSGSGKSTLLRMLAGMESPNQGGKIIDGQDITKLAPYDRPINMMFQSYALFPHMTVEQNIAF GLKQDKMPKGEIARVEMLRLVQMTKFAKRKPQLSGGQQORIALARSLAKRPKILLDEPLGALDKKLROQTQL ELVNTLEQVGVTCIMVTHDQEEAMTMATRIAIMSDGQLQQVGTSPDVYDYPNSRFTAEIFIGETNIFDGVVIEDHAD YAVIECEGLENHVRIDHGLGGPSEQDLWVSIRPEDIIDLYKEKPEYLGDNWAKGTVEIAYLGSFAIYHIKLGNGR VVKSQVPAPYWYVRNITPPTWDETUYISWPNQPTPLFR

62	0617	MHVSELOTLHISKLELAEEHGIENANFRKQDLVFAIVRQMMKKGEGFTCSGTLEILPDGFGFLRSADTSYLAPG DDIYVSPTQIRRFNLHTGDTIEGSSVRVPKDNERYFALVRLDTINGDHPEVCRHKILFENLTPLFPTEQLKLERDLK SEENLTGRAIDLISPIGKGQRALLVAPPKSGKTVMLQNIHAHVANTANYPEVELIVLLIDERPPEEVTEMSRSVRGEVV SSTFDEPAQRHVQVAEMVLEKAKRMVEHKKDVILLDSITRLARAYNTVVPTSGKILTGGVDANALHRPKRFFGAA RNVEEGSLTIATALVETGSRMDDVIYEEFKGTGNMELHLDRMAEKRLFPAININKSGTRREELLVPNDQLQRM WLLRKLFLHPMDEIEAAEFLLGKIKASKNNDDFFELMRGK
63	0618	MADNYVIWFENLRMTDVERVGGKNASIGEMISQLTEKGVVPVGGFATTAEAYRAFLAHNGLSERISAALAKLDVED VAELARVGKEIRQWILDTFFPEQLDAEIEAANWKMVADAGGADISVAVRSSATAEDLPDASFAGQOETFNLINGLD NVKEAMHHVFASLYNDRAISYRVHKGFEHDI VALSAGVQRMVRSDSGASGVMTLDTESGYDQVVFVTSYGLGEN VVQGA VNPDEFYVFKPTLKAGKPAILRKTGSKHIKMIFTDKAEAGKSVTNVDVPEEDNRNFSITDEEITELAHYA LTIEKHGRPMDEIWRDGLDGKLYLQARPETVKSQEEGNRNLRFAINGDKTVLCEGRAIGQKVGGQGVRLIKD ASEMDSVEAGDVLVTDMDTPDWEFVMKRASAIVTNRGGRTCHAAI IARELGI PAVVGCNATELLKNGQEVTVSCA EGDTGFIYAGLLDVQITDVALDNMPKAPVKVMNVGNPELAFS FANLPSEGI GLARMEFI INRQIGIHPKALLEFD KQDELKAEITRRIAGYASPVDFYVDKIAEGVATLAASVYPRKTIVRMSDFKSNEYANLVGGNVYEPHEENPMLGF RGAARYVADNFKDCFALECKALKRVRDEMGLTNVEIMI PFVRTLGAEAEVVKALKENGLERGKNGRLIMMCELPS NAVLAEQFLQYFDGFSIGSNMDTQLTLGLDRDSSGLVSESFDERNPAVKVMLHLAISACRKQNKYVIGCGQGPSDHP DFAKWLVEEGIESVSLNPDVTIETWLYLANELNK
64	0623	MKKTIVAAAILSLALTACGGGSDTAAQTPSAKPEAEQSGKLNINWSDYVDPETVAAFEKETGIKTRSDYYDSNET LEAKVLTGKSGYDLTAPSIANVGRQIKAGAYQKIDKAQIPHYGNIDKDLKMMEAVDPGNEYAVPYFWGINTLAIN TQQVKKALGTDKLPENEWDLVFKPEYTA LKSCGISYFDSAIEQIPLALHYLGKDPNSENPEDIKAAVDMMKAVRG DVKRFSSSGYIDDMAAGNLCAAIYGGLNIAKTRAEEAANGVEIKVLT PKTGVGVVWDSFMI PRDAQNVANAHRY IDYTLRPEVAAKNGSFVTYAPASRPARELMDKEYTSDASIFPNKELMEKSFIVSPKSAESVKLVGKVLWQGLKAGK
65	0631	MAKVLIVPVSAGLDASAAAQAFKALDAQIFQAVDATAETLLAQGKSDWFDALVGKVAALDAANLVI EGIAPDAD KIYLAGKNVELALSDDAAVFAVRSDNADDELANRVNLAKQFFAAAPGVLEGFVVDGAAASVAEAAA EKTGLTFF GSSDALKDVSVLAGEAKRLSPAQFRYNLIDFARQADKRIVLPEGAEPRTVQAAAICHEKGIARCVLLAKREEVEA VAKERGISLPDSLEIIDPASLVEQYVEPMCELRKSKGLTPEDARKQLQDVTVLGTMMAQNDVDGLVSGAVHTTAN TIRPALQLIKTAPGASLVSSVFFMLLPNQVLVFGDCAVNPNPTAQQLADIAIQSADSAKAFGIDPKVAMISYSTVN SGSGPDVDVTIEATKLAREKRPDLAIDGPLQYDAATVPGVGSKAPGSPVAGQATVLPVLPDLNTGNCTYKAVQRNA NVLSVGPLQLGLRKPVNDLSRGALVEDIVFTIALTAVQAKQMEG
66	0634	MKTSIRYALLAAALTAATPALADITVYNGQHKEAAQAVADAFTRATGIKVKLNSAKGDQLAGQIKEEGSRSPADVF YSEQIPALATLSAANLLEPLPASTINETRGKVPVAAKDWVALSGRSRVVYDTRKLSEKDLKSVLNYATPKWK NRIGYAPTSGAFLEQVVAIVLKGEAAALKWLKGLKEYGKPYAKNSVALQAVENGEIDAALINNYWHAFAREKGV QNVHTRLNFRHRDPGALVTYSGAALVKSSQNKDEAKKFVAFSLASKEGQALTA VRAEYPLNPHVSTFNLEPIAK LEAPQVSATTVSEKEHATRLLEQAGMK
67	0637	MHDKTWSGRFNEPVSELVKQY TASIGFDRRLAEWDIQGSLAHAQMLKETGVLD EGD LADIRRGMAEILEEIRSGKI EWSSDLEDVHMNIERRLTDKIGDAGKRLHTGSRNDQVATDIRLWLRDQITVIOQLIQSLQ TALLDLAEQNAETVM PGFTHLQVAQPVSFHHMLAYVEMLRDNERMADCRVRNRMPLGAAALAGTTYPIQREITAE LLGFEQICQNSLD AVSDRDFAI EFTAAASLVMVHLSRLSEELILWMSPRFGFIDIADRFTCGSSIMPQKNPDVPELVRGKSGRVIGHL IGLITLMKSQPLAYNKDNQEDKEPLFDTADTLIDTLRIYADMMRGVTVPKPNMRAAVMQGFATATDLADYLKKG M PFRDAHEVVAQAVRHADQAGVDLSELPLEVLQGFSDLIADDDVYGVLTPEGSLNARNHLGGAPEQVRVQVWRREM LA
68	0641	MADFNQILTPGDVDGGIINVVNEIPAGSNHKEIWNKRKLA AFQLDRVEPAI FAKPTNYGFIPQTLDEGDGDELVDLLV TEQPLATGVFL EARVIGVMKFVDDGEVDDKIVCVPADDRNNGNAYKTLSDLPQQLIKQIEFHFNHYKDLKAGTTK VESWGDAAEAKKVIKESIERWNKQA
69	0663	MKKALATLIALALPAAALAE GASGFYQADAAHAKASSLSGSAKGFSPRISAGYRINDLRFAVDYTRYKNYKAPST DFKLYSIGASAIYDFDTQSPVKPYLGARLSLNRASVDLGGSDSFSQTSIGLGLVTGVSYAVTPNVLDL DAGYRNYI GKVNTVKNVRSGELSAGVRVKF
70	0697	MKEHKARKRFGQNFLODTRIISDIVNAVRPQADDVIEIGPGLAAITEPLAKKLNRLHVVEIDRDIVCRLKTL PFA DKLVIHEGDVLQDFDNGIAGKKKIVGNLPYNISTPLLFKLAEVADDVDMHFMLOKQEVVERMVAPKSN DYGR LGV MLQYFFDMEMLIDVPPE SFDPAPKVDSAVVRMIPVKHRI GKADDFEHFAKLVKLAFHQRRKTI RNNL KELAGDDDL QAVGINPQDRAEHIAPEKYVALSNYLAGKV
71	0703	MKKILLTVSLGLALSACATQGTVDKDAQITQDWSVEKLYAE AQDELNSSNYTRAVKLYEILES RFP TSRHAQQSQL DTAYAYYKDDEKDALAAIDFRRLHPQHNPMDYALYLRGLVLFNEDQSFLNKLASQDWSDRDPKANREAYQAF AE LVQRFPNSKYAADATARMVKLV DALGNGEMSVARYYMKRGAYIAAANRAQKIIGSYQNTRYVEESLAILELAYKKL DKPRLAADTRRVLETNFPKSPFLKQPWRSDMPWRYWH
72	0711	MSSGNIHHSMTGFANAAECGSKRINLDLRAVNHRFLDIQIRMPDDLRYLES GIREKISSHIARGKVECKIQIQD AENGQSLELNRDLVGQLAEINKDLRKHDLAKLGVADILRFPGLASQRENT EELAKSITELTEKALKDFTAARK REGKKLGEHLQRL EAMEEIIDALSELFP TLETHKEKIRARLVEAVGSI DNRLQOEFALFIQSDIDE EFSRLR

		THIAEVRRIIVTEHKGSSGKRLDFLMQELNREANTLGSKSIAAECTQASVELKVLIEQMREQVQNI
73	0720	MLNITLPGDSVRQYESPVTVQAIAASIGAGLAKATVAGRVNGKLVDACDPIVEDSAVQIITPKDQEGEIIIRHSCA HLVGHAVKQLYPNAKMVIGPVIEEGFYDIATEKPTPEDVAAIEARMKELIAQDYDVVKIMTPRAEAIKIFQERG EYKRLRLIDDMPEVEAMGMVYHHEQYVDMCRGPHVPNTRFLKNFKLTKLAGAYWRGDSNNEMLQRIYGTAWATKDEL KAYIQRIEEAEKRDRHKLQKQLDLFHLQDEAPGMVFWHPKGWALWQVIEQHMRKELNAGYKEVKTPOIMDKTFWE KSGHWDNYKDNMFVTSSEKREYAVKPMNCPGHVQIFNNGLSYRDLPMRLAEFGSCHRNPSGALHGLMRVGRGFVQ DDAHIFCTEDQIVSEARAFNELLIRIYKQFGFHDVSVKLSLRPEKRAGSDVDWDAEQGLREALTACGVWEGELPG EGAFYGPKEIYHVRDALGRSWQCGLQLDFVLPRLNAEYVTENNDRARPVMLHRAILGSLERFIFIGILIENHAGSF PLWLAPVQLVIMNITENQADYCREVAAKQAAGFRAELDLRNEKIGYKIRDNSQYRFPYQIVVGDKKEKQENKVAVR RKAEDLGSLDLDDFIAQLQOEITDALVNH
74	0724	MENVNRIVAEGIAAVEAAQDFNALEQIKARYLGKTGELTGLLKTGQMSPEERKTIGAHINECKNRFQTAFAKRE ALNEVKLQARLAAEALDITLPGRAQEGGSLHPVTTLQORVVELFHGMGEVADGPEIEDDFHNFQALNIPANHPAR AMQDTFYVENGDLRTHTSPIQIRYMLDKKEPPIRIIPAGRVYRVSDATHSPMFHQAEGLWVEEGVTFADLKAVF TDFIRRFERDDLQVRFRPSFFPFTEPSAEIDIMGENGWLEVGCGMHPNVLKNVNIDPEKYTGFAFGIGLDRE AMLRNVNDLRLFFDNDLNLKQFAK
75	0728	MQFSYSWLKTQADTELSSDKLEHLLTMSGLEVEEAETAAPAFAGVIVAEVKSVEKHPDADRLNVTRVDAGTGGLVQ IVCGAPNVKAGIKVPCSLPGAVLPNGFKIKPTKMRGEVSDGMLCSTDELGLPDDGVNGLHILPEDAPVGTNIREYL DLDDTLFTLKITPNRADCLSIKGIAREVSALTGCAFRQPEIHTAPITGSRKQPVQINAPADCGRFISRVIEVNNAR ATTPDWMKORLERSGIRSISALVDIGNYVMEIGQPMHVFADKLSGLHIRRAREGETLECLNEKTVSLSENTLV VADEKGVLSLAGLMGGAASAVSDGTQNVILEAAWFAPEIIAGKSRYQYFGSDSSFRFERGVDRYLDQADAIERATEL VLQICGGAAGEMVEAQGELPEAKQVGLRLDRLKTVLGVDIPAEQVETILQHLGLQPEKTAEGFRVTAPSRFRDIEI EADLIEEIGRVYGYENIPDDYTSGRKMLELPETRRPRFAVYNEMAARGYREVVSAYFVDEQWEQDFAANADPIRL QNPLAAQYAVMRSTLIGGLVEILQNNLNKQNRVCVEIARVFSKSGSDGQFVQNERIGGLWYGAVMPEQWGGKTRN ADFYDIKADVENLLKNKAVEFVKTHPALHPGRAANIVSDGKIVIGFVGLHPKWLQKYDLPQAPLVFEIDMAAVLE CGKTRYRVVSKFQPVRRDLAFVMPPEAMSHDDLVLKGAANKLVQEISVFDVYRGTLPEGMKSVAVKVLQDMEN TLTDEAVEPLIGKLIGAATAAGARLRS
76	0743	MGGQKTHFGFSTVNEDEKAGKVAEVFHSVAKNYDIMNDVMSAGLHRVWKHFTINTAHLKKGDKVLDIAGGTGDLRSR GWAKRVGKEGEVWLTIDINSMLTVGRDRLNNEGMIPLVSLADAELPFDPNYFNLVSVAFGLRNMTHKDAALKEMY RVLKPGGTLVLVLEFSKIYKPLEGAYDFYSFKLLPVMGRLIAKDAESYQYLAESIRMHPDQETLQKMMLDAGFDSVD YHNMSAGIVALHKGVKF
77	0757	MSEIGLVKIYFGKVRDLYEIDDKRMLMVASDRLSAFDVLDDPIPSKGEILTQISNFWFKLAHIMPNHFTGQTVY DVLPENEAKALEKRAVVAKLTPVKVEAIVRGYLAGSGWKDYQKTGSVCGIQLPEGMQEAQQLPEVIFTPTSKAAV GDHDENISFEECGRIIGKELAEVRKAVRLYTEAAEYAKSRGIIICDTKFEFGLDENGTLTLMDEVLTDPSSREWF PADQYKVGNTNPPSFDKQFVRDWLEQSGWNKKAPAPKVPADVIQKTVEKYREALTLTQD
78	0758	MMFDKHVKTFQYGNQTVTLETGEIARQAAAIVKSMGDTVVVLAVTTNKEVKEGQDFFPLTVDYLERTYAAGKIPG GFFKREGKQSEKEILTSRLIDRPIRPLFPEGFYHDIQIVAMVVSVDPEIDSDIPAMLGASAAVLVSGVPFAGPIGA ARVGYNVGVYVLPNTKAEAKSLQDLVVAGTSKAVLMVESEAKILPEDVMLGAVVYGHQDMQVAINAINEFADEVN PELWDWKAPETNEELVAKVRGIAGETIKEAFKIRQKARSALDEAWSAVKEALITEETDLAANEIKGIFKHLEA DVVRSQILDGQPRIDGRDTRTVRPLNIQTSVLPRTGHSALFTRGETQALAVATLGTSRDEQIIDALSGETYDRFML HYNFPYSTGEVGRMGAPKRREIGHGRLAKRALLAVLPKPEDFSYTMRVVSEITESNGSSSMASVCGGCLSLLSAG VPLKAHVAGIAMGLILEGNKFAVLTDLGDEHDLGDMDFKVAGTTEGVTALQMDIKIQIGITKEIMQIALAQAKEAR LHLLDQMAAVAGPOELSAPRLFTMKINQDKIREVIGKGETIRSITAETGTEINIAEDGTTIAATTQEAAGDA AKKRIEQITAEVEVGKVEGTVVKILDNNVGAIVSVMPEGKDLVHISQIAHERVRNVGDYLVQGVQVNVKALEVDD RGRVRLSIKALLDAPAREENAAE
79	0763	MKIANISITELIGNTPLVKLNRLTEGLKAEVAVKLEFFNPGSSVKDRIAEAMIEGAEKAGINKNTVIVEATSGNTG VGLAMVCAARGYKLAITMPESMSKERKMLLRAFGAELILTAAEGMAGAIKAKSLVDAHPTDYFMPROQFDNEANP EVHRKTTAEIWRDIDGKVDVVFVAGVGTGTTITGVGEVLKYYKPEVKVVAVEPEASPVLSGGEKGPPIQIGIGAGF IPTVLNTKIYDSITKVSNEAAFETARAIAEKEGILVGISSGAAVWSALQLAKQPENEGKLIVLLPSYGERYLSPT LFADLA
80	0778	MPSETSSPRKENETEVHIIAPAFIVKQSGSNALAVCALVLAALGLTSGFLVQGVNVLKNQELAFNQIKDKAALG ESENAAALKDNLNRQAAIQSELDRLDGNVKANGEQIILEMQSYRELTKGRADWLVDDETETILNLAQQVLVTGNIQ TAVGVLEHIDSRLSRFNQAEALLPIQAVSSDLAELKNRPYVDISGTALRLDRLETAVSGLPLMLDGVLPKPGVQVKN EAASASWQNVWEKSLGTLKGLVEIRRLNNDAMLISPEQAYFVRENLRLLDARTALMQRNSEVYQGLNNAEA AVRQYFDAKSPATQSWLKEALKALDVRMTADDGLKNSLNAVRAVYRDGTRMTAAENQEAQAESEANKEKTASEP AAASDVKTIEAPSLPSEKPEQPAKKQTVPEKAGRSPSAKGERA
81	0791	MIILHTNKGDIKIELDFDKAPVTAKNFEQYVKDGYDGVIFHRVIKGFMIQGGGMENDMNEKETRDPIONEASNGL PNDKYTIAMARTSDPHSASAQFFINTADNAFLNFRSKELYGKTVVQDWGYAVFGKVVDGFDVDAIEGVSTKRHGY HDDVPSEPVVIIKAEAV

82	0804	MTVLSKEQVLSAFKNRKSCRHYDAARKISAEDFQFILELGRSPSSVSGSEPWQFIVVQNPEIROAIKPFWSGMADA LDTASHLVVFLAKKNARSDSPFMLESKRKRGVTEPDAVAKSLARYQAFQADDIKILDDSRALFDWCCRQTYIALAN MMTGAAAGIDSCPVEGFNYAEMERILSGQFGLFDAAEWGVSVAATFGYRVQEIATKARRPLEETVIWA
83	0814	MQTWQLPEHIADVLPNARQLESAREQLLALFRVHGYELVQPPLEMYAHSLLTHIDAGLSLKTILVTDRLSGRQLG IRADITPQVARIDAHLLSANQGINRLCYAGPVLHAQPDGLLNMREPLQAGAEMYGFADIRGDIELIDLMLKSMKIA DMGKVLSSLGHIGIFRALSDAHLDAQOSATLLALMQDKDTGAVEAQVKAWKLDGMWAKAFSLLPRLYGGREVLSD ARGRLPDLSSAVGGALGELQAVCDAFPDCIEHIDLSELVDNYHTGLLYAAYAADFHDVAARGGRYDGLGGYFGRAR PATGFSFDLRSFIGRLPAIERQPAVLVDAEDAEAAHEAVEALREQQCQVVIDYGIHNVSEELAGRLKKTGDGVWQV VKR
84	0815	MAMAKNVVVIGAQWGDGEGKGIVDWLAEAGGVVRFOGHHNAGHTLVVGKKTILRLIPSGILHESLDCFIGSGVV VSPEALLGEIDELNAGVKNVEGRKLIAPTCLILPYHIALDQAREASRGKGIGTTGRGIGPAYEDKVARRAIRA ADLLHPEKLREKLDAVLAYYNVQLQHLHNAEPVKAEDVMVIEKVAPRIAPMITDVSRLNEKNKNGEKLLEFEGAQ GALLDIDYGYTFVVTSSNCLAGAASAGAGVGPQMLDYLGVIKAYTTRVSGSGFPFTELFDEVGVGLAERGHEFGSV TGRARRCGWFDAAALKRSIQINGISGMCITKLDVMDGVETINICVGYELPDGGKTDLPCGSDAVETCKPIYETMP GWRESTFGVKDYGALPENAKAYLKRIEEVCGAPVAIVSTGPDREETIVLHHPFA
85	0828	MTIIVTGAAGFIGSNIIVKALNQRGITDIVAVDNLKSGEKFKNLAECIAHYLDKHEFIRQVREHILPYQNI EAVFH QGACSDTMNHDGLYMDNNYQYTLDDLWDQCQDERIPFLYASSAAVYGKEIFREERELEKPLNVYGYSKFLFDQVL RRRMKEGLTAQVVGFRYFNVYQHEQHKGRMASVAFHFFHQYREHGYVNLFGSNDGYNGEQTRDFVSVEDVAKVN LYFFDHPESGIYNLGTGRSQFNLAAATVNACRAAEGKPEMSLKELEVEELIRYIPFDALKGKYQSTQADIT KLREAGYKEEFFDVKSGVDRYVKWLENLA
86	0854	MAQKIQSVKGMNDLLPVKQDKFLTAAFWQAFEDTVGRWTRAYGYQQIRTPIVEQTGLFVRSIGEETDVVGKEMYT FSDSNDLSLSLRPEGTASCLRAVVEHNLLNSPQKLWYMGPMFRERPOKGRYRQFHQVGIEALGFEQPDIDAEI IAMSADLWEKLGIREYLTLEINSLGNREERAHRAALVEYLTRYEDKLEDESKRRLKTNPLRVLDTKNPDLQEICN AAPRLVDYLGEDSQNHVYRFKAMLDGLGIQYIENPRLVRGLDYNNQTVFEWTTDKLGAQATVCGGGRYDGLIEELG GKPAPSIGFAMGIERLLLVSEYGSLEVNAAPDVYAMHQEGADLQVMKYAALRAQGFNVMQHSGYQSLKQMKK ADNSGARFALIVAQDELANGVTTLKDMNGAHGQQTVAEDLTPTLQQWKNA
87	0875	MAAYDSLMTGTGNANPELAQRVVRHLDISLGNASVSKFSDGEVAVELLENVRGRDVFILQPTCAPTNDNLMEILTM ADALKRASAGRITTAIPYFGYARQDRRPSRVVPISAKLVANMLYSAGIDRVLTVDLHADQIQGFFDIPVDNIYAT PILLNDIKQORIENLTVVSPDIGGVVRARAVAKSLNADLAIIDKRRPKANVAEVMNIIGDIQGRCLIVDDMIDTA NTLCKAAVALKERGAEVRLAYASHAVFSGEAVSRIASSEIDQVVVTDITPLSEAAKNCDRIRQVTIAGLAEVTRR ISNEESVSYLNFEEVMTGSMLLP
88	0876	MTYEIQASVREAQGTGASRRRLREGQIPGILYGEQEPVAIAVDHKTIFYALEKESFHTALIKLSINGETKDVIVR DFQMHPFRREVQHIDFQAVKADQLVRI RVPLHIVNAENSQAVKLQGGRVSLNLSVEVVALPANI PAFLDLCAEV VAGDILHLSDIKLPPEGVESVSLKRNNENLAVATVTGKKR
89	0878	MNTPLPYSDYLIRILTASVYDVAVETPLEPARSLSVRLKNNILLKREDLQPVFSFKIRGAYNKMSKLPKDALACGV IAASAGNHAQGVSAQRLGCRATIVMPETTPKIKVDVAVKSHGGEVVLRGVSYNDAVDYAMELAEKEGLTYIAPFD DPDVIAGQGTVMGEIVSQHPDPIRAVFPVIGGGGLAAGVAAFQVRPEIKVIGVQTNDSCCMKQSVEAGEIVHLK DVGLFSDGTAVKVVNETFRLCKELDEIITVDTDAVCGAVKIDFDDTRSITEPAGALALAGLKAYIAREGAENQT LIAVTSKANMNFHRLRHVSESELGEGNEGIFAVTIPEERGSFLKFVNILGNRNITEFNRYRGDEKAHIFVGLQA AGPQDLAVIGSRLDEAGLPNDLTNNEIAKIHIRYMWGGRTDKVENERLVSFEFFERPGALARFLNHMQGWNITL FHYRNHGADYGRILVGDVPPHDAADFGLFESLGYSHEETQNAAYKLFLA
90	0884	MEHKLPQLPYELDALSPLHSLKETLEFHYGKHQTYITNLNNQIKGTEFENLPLEEIVKSSGGVFNNAAQTWNHTF YWLGFTSKGQKPGELAAAI DAKWGSFEKQEAFAFNACAAGTFSGWAWLVKTPAGGLDLVSTSNAAATPLTENTP LLTCDVWEHAYYIDYRNSRPNYLKGFEIVNWDEVAKRFAALS
91	0885	MNDYAAMPSEDREVGALSPLPHSMEAEQSVLGGLMLNPAWDRIADVSGEDFYRHEHRLIFRSIAKLINESRPAD VITVQEDLQRNEELEAAGGFEYLITLAQNTPSAANIRRYAEIVRERSIMRQLAEVGTETIARSAYNPQGRDAGQLLD EAENKVFQIAESTAKSKQGFLEMPDLLKEVVQRIDMLYSRDNPDDEVTVPTGTFIDLDKKTSGLPQGDIIIVAGRPS MGKTAFSINIAEHVAVEGRLPVAVFSMEMGGAQLVMRLGSGVGRLDQSVLKTGRLEDEHWRGLNEAVVKLSDAPVY IDETPGLTALELRARARRLARQFNKGLLIVIDYQLMAGSGRSDNRASELGEISRSKLAKELQVPIIALSOLS RTVESRTDKRPMMSDLRESGAIEQDADLIMFYRDEYYNQDSPMKGLAECIIGKHRNGPVGKIFLTWTGQFTKFDN AAYIPPEAKIED
92	0894	MNTLLNQLKPYPFARLREAMQGISAPEGLEAVPLHIGEPKHPTPKVITDALTASLHELEKYPLTAGLPELRQACAN WLKRRYDGLTVADNEILPVLGSRALFSFVQTVLNPVSDGIKPAIVSPNPFYQIYEGATLLGGGEIHFANCPAPS FNPDWRSISEEVWKRTKLVFVCSPPNPSGSLDLGDKWKEVFDLQDKYGFIIASDECYSEIYFDGNKPLGCLQAAQ LGRSRQKLLMFTSLSKRSNVPLRSGFVAGDAELLKNFLLYRTYHGSAMSI PVQRASIAAWDDEQHVINDNRRMYQE KFERVIPILQQVFDVKLPDASFYIWLKVPDGDLLALARNLWQKAAIQVLPGRFIARDTEQGNPGEYVRIALVADV ATCVKAAETIVSLYR
93	0920	MTQKSTIVYTHTDEAPALATQSLLPVQAFARHADIVKTSDISLSGRILAAFEYLTAEQRVPDALAELGELVKQ

		PDANVIKLPNISASVPQLTAAIKELQSKGFVDPYADPQTDDEKAVRERYDRIKGSAVNPVLRGNSDRRAPKAV KNFAKKNPHSMGAWTKDSKTHVATMQSGDFHNEQSVIVPEATSVSIVFTDKQGNKKELREFVALKAGEIIDATVM SKKALLAFLAEQVKDAKAGVLFSLHMKATMMKVS DPIIFGHAVKVFFAPVFEKFGDKLAAAGVNVNNGFGNLLAN LDKLDADTRTAVEAEIAAVYAANPDAMVDSKGITNLHVPSDIVDASMPAMIRNSGRMWDKNGKAQDTKAVIPD SSYAGVYQATIDFCREHGAFDPTTMTGTPVNVGLMAQAAEYGSNKTFEIEADGQVQVIDAAGKVLMOHDVEAGDI WRMCQTKDAPVKDWQVLAVNRARLSNTPAVFWLDENRPHDKSLAKVKAYLAELDTNGLDIRVLAPEEAAKFSLGR LKNGEDTISVTGNVLRDYLTDLPFILELGTSAKMLSIVPLMNGGGMFETGAGGSAPKHVQGFLEENHLRWDSLGEF LALAVSFEHLAQKTGNAQAQVLADTLDAATEKLLNDKSPKRKAGELDNRGSHFYLTLYWAQELAAQDKDAELKAA FTPLAAALTADAEAKI VAELSAVQGAADIGGYAANPEKAAQVMRPSVTFNQALNAL
94	0944	MTTLHFSGFPVRGAFRELKFAQEKYWRKEISEQELLAVAKDLREKNWKHQVAANADFVAVGDFTFYDHILDLQVAT GAIPARFGFDSQNLSEQFFQLARGNKDQFAIEMTKWFDNTNYHYLVPEFHADTEFKANAKHYVQQLQEAQALGLKA KPTVVGPLTFLWVGKEKGAVEFDRLSLPKLLPVYVEILTALVEAGAEWIQIDEPALAVDLPEKWEAYKDVYATL SKVSAKILLSTYFGSVAEHAALLKALPVDGLHIDLVRAPQLDAFADYDKVLSAGVIDGRNIWRANLNKVLTEVPE LOAKLGRDLWISSSCSLHTPFDLSVEEKLKANKPDLSWLAFTLQKTQELRVLKAALNEGRDSVAEELAASQAAA DSRANSSEIHRADVAKRLADLPANADQRKSPFADRIKAQQAALNPLPLPTNIGSFPQTTEIRQARSFAKKGELSA ADYEAMKKEIALVVEEQEKLDLDVLVHGEAERNDMVEYFEGELLSGFAFTQYGVWQSYGSRVCVKPPIIFGDVSRPE AMTVAWSTYQSLTKRPMKMLTGPVTILQWSFVRNDIPRSTVCKQIALALNDEVLDLEKAGIKVIQIDEPAREG LPLKRAWDAYLNWAGESFRLSSAGCEDSTQIHTMCYSEFNDILPAIAAMDADVITIETSRSDMELLTAFGEFOY PNDIGPGVYDIHSPRVPTAEVEHLLRKAIEVVPVERLWVNPDCGLKTRGWKETLEQLQVMNVTRKLRaelak
95	0946	MALQDRTGQKVPSVVFTRVGDVTKDSTDDLFKGGKVVVFSLPGAFTPTCSSSHLPYRNELFGAFKENGVDATYC VSVNDTFVMNAWAAEESDNIYIMPDNGEFTEGMGLVGKEDLGFGRKSRWSYMLVNDGVVEKMFIEPEEPGDPF KVSDADTMLQFVAPDWKAQESVAIFTKPGCQFCAKAKALQDKGLSYEEIVLGKDATVTSVRAITGKMTAPQVFIG GKYIGGSEDLAEYLAKN
96	0947	MKKIQADVVGIGGTAGMGAFNRARLSHSDNVYLIENNVFGTTCARVGCMPKLLIAAAEARHHAHTDPFGVHLDK DSIVVNGEEVMQRVKSERDRFVGFVADVEEWPADKRIMGSAKFIDEHTVQIDEHTQITAKSFVIATGSRPVLPO WQSLGNRLIINDVFSWDTLPKRVAVFCGPGVIGLELQALHRLGVKVEIFGLGGIIGGISDPVVSDEANAVFGEEL KLHLDAKTEVKLDADGNVEVHWEQDGEKGVFAEYMLAAVGRRPVNDNIGLENINIEKDARGVPVADPLTMTQTSIP HIFTAGDASQLPLLHEAADQKGIAGDNAGRYPNIGGLRRSTIGVVFTSPQIGFVGLKYAQAQYQADEFVIGE VSFKNQGRSRVMLVNGHMRLYAEKATGRFIGAEIVGPAAEHLAHLAWAHQMKMTVPQMLDMPFYHPVIEEGLRT ALRDADAKLKA
97	0955	MMDEKLNFSYLFSGSNAPYIEELYEAFLNPDAVDEKWKQYFTDLSKQPGTVAVDVAHTPIRESFVTLAKKKIASAV AGGADEAMLKKQVSVLRLISAYRIQGVGAAQLDPLKRIPPRDIEALDPKFHGLSDADMALQFNMGEQDFANRGLP LSQIISNLKQTYCGHIALEYIYPNTEERRWVRNYFESVLSTPHYNADQKRRIKEMTAAETLERYLHTKYVGQKR FGVEGGESAIAGLNYLIQNAKG DGVEEVIIGMAHRGRNLVNLGKKGPDLEAFEFEGRAEIKLPSGDVKYHMGFS SDIATPHGPMHVSLAFNPShLEIVNPVVEGSARAKQKRLGNGRDKVLPVLIHGDSAFI GLGVNQATFNLSKTRGY TTGGTVHIVINNIGFTTSDIRDTRSTVHCTDIAMVSAPVIHVNGDDPERVCFAIQAALDYRKFKHDKDIVDVVC YRKWGHNEGDDPTLTQPMYKKSQHPGARALYTEQLIAEGVVTQAEADGYIQAYRDALDKGEHVEQTTLNSFORT QIDWSKYQKDWREHIE TGLPAADIERLTEKFTAVPEGFALHPTAKRVIEARKAMASGKQAI DWGMAETLAYASLV TKGHGVRISGEDSGRGTFSHRHVLHDQKREKWDGTYVPLRHMGEGMGFEFLVIDSILNEAVMAFEYGFACSA PD KLTIWEAQFGDFANGAQVTIDQFLSSGETKWGRLCGLTTILPHGYDGGQPEHSSARVERWLQLCSENMMQVIMPSE ASQMFHLLQRQVLGSYRKPLVIFMSKRLLRFKAMSPLENFTEGSTFRPVIGDTAERASNDSVKRVVLCAGQVYYD LEAGRAERKLEDDVAIVRVEQLYPPFYDEVKAELAKYPNAKSVVWAQEEPKNQAFYQIRHRIEDVISEEQKLSYA GRPSSASPAVGYSKXIAQLKQLVEDALAL
98	0956	MIIDVKVPMLESVSEGTLEWKKKVGAEVARDEILIDIETDKVVLEVPSQAGVLVEIVAQDGETVVADQVLARV DTAATAAAEAPAAAPAEAPAAAPAAATQNNAMPAAAKLAAETGVDVNALQSGSRDGRVLKEDVQNAAPAGAAA PAVALPAGARPEERVPMRRLARVAERLLASQENAILTTFNEVNMKPIMDLRKYKEKFEKEHGVKLGFMSSFFVK AAVAALKKYPVNASVDGKDIVYHGYFDIGIAIGSPRGLVVPILRDADQMSIADIEQAIVDYAKKAKDGKIAIEDL TGGTFSITNGGTFGSMSTPIINPPQSAILGMHATKERRAVENGQVVRPMMYLALSYDHRIIDGREAVLTIVAIAK DALEDPARLLDL
99	0959	MNLHEYQAKELLASYGLPVQGGILAHNGEEAAAAYDKLGGKFAVVKQVHAGGRGKAGGVKVKVSREEAKEVAESL IGTNLVTYQTDANGQPVNSVLVCEDMYPVQTELYLGAVVDRSTRITFMASTEAGGVEIEKVAETPEKIFKVTVP LVGLQPCQAREVAFQLGLKDKQINEFVKLMTGAYKAFVENDFALFEVNPLAVRENGALACVDGKIGIDSNALYRLP KIAELRDKSQENERELKASEFDLNYVALEGNIGCMVNGAGLAMATMDI IKLKGQPANFLDVGGGATKDRVVEAFK LILEDKSVQGVLINIFGGIVRCMDIAEAI VAAVKEINNVNPPVVRLEGNNALGAKILNESGLKLT SADGLNDAAE KIVAAVNA
100	0960	MSVLINKDTKVLVQGFTGKNGTFHSEQALAYGTVVGGVT PGKGGQTHLNLVPVNTMKEAVKETGADASVIYVPAP FVLDSIVEAVDSGVGLVVVITEGVPTLDMLKAKRYLETNGNGTRLVGPNC PGVITPGECKIGIMP GHIHTPGRIGI ISRSGLTYEAVAQTTLGLGQSTCIGIGGDP IPGMNQIDALKLFQEDPD TDAIIMIGEIGGTAE EEA EYIQSNV SKPVVGYIAGVTAPKGRMGHAGAIISGGKGTAE EKFAAF EKAGIAYTRSPAELGTTMLEVLKAKGLA

101	0983	MSSIKRALISLSDKTGAVEFAQTLHLKLGVEILSTGGTAKLLADAGVPVIEVADYTGFPPEMLDGRVKTLPKIHGGI LGRRLDEHVAKMEEHGIGNIDLVCVNLYLEFAATIAKPNCITLEDAIENIDIGGPTMVRSAKNWKHVAIVTDTADF PAIAAELEANNALSDKTRFNLSRKAFSHTAQYDGMISNYLTSLSDDVLSGTPETAGFPGRFNQSWIKVQDMRYGE NPHQRAAFYRDIDPAAGSLAAYKQLQKGKELSYNNIADADAWEAVKSFDPVACVIVKHANPCGVAIASNTLDAYKL AYATDTTSAFGGIIAFNREVDGATVKQITDNQFMEVLMAPKFTAEEIAAAKKNVRVLEVPLEAGANRFELKRVG GGLLVQTPDIHRI SRADLKVVSKRQPTQEWNDDLFWVNVAKYVKSNAIVFGKGGQTYGIGAGQMSRVDSTRIAAR KAQDAGLDLNGACAASDAFFFRDGVVIAEQGIKAIHPAGSMRDQEVFDDADEHGIAMVVTGIRHFRH
102	0997	MSASQLLSRLTQTVGEKYIITDPAKTEQYRQGYRFGEGKALAVVRPGSILEMWKILQACVEADVIVITQAANTGLT GGSTPDGNDYDRDIVIVNTMRMNIQTINNEQVCLPGSTLNQLELLKPLGREPHSVIGSSCIGASVLGGVCNN SGGALVQRGPAYTEMALFAQINEEGRLELVNHLGIDLNTPEEILTNLQGHYQNKDITQDAGKGDHAYCEHVRQ VDEPTAARNADPARHYEASGCAGKLMVFAVRLDTFPQEKQTAVFYIGTNDINELTDIRRAALGEFESLPVSGEYI HRHAFDIADVYGKDTFYVIKKFGTHQLPKLFDLKARVDRFGKKVSFLPKHFSKAMQFVSKFLPDHLPKSMRDYRD KYEHLILKMGKGVDARAFLEKEYFAHHGGAFFECNAEETOQAMLHRAVASAAIRYRAVHDDEVEDLVALDIAL RRDDRDWFEKLPPEDNKIHKLYYGHFMCHVFHQDYIIKKGNDCMALEHEMLHLLDQGAQYPAEHNVGHLYEAK PALKQFYRKLDPTNSFNPGVGKTSKKKNWAE
103	1031	MTKHIAILRGDGIGPEIVAETVRVLDKLIAGQLDAGYEPALGGEAYDEYGHYPPEFTQNLCKADAVLLGAVGSP QYDNLDRPLRPERGLLAIRKDLNLFANLRPAVLYPELANASTLKPEIVAGLDILIVRELTDIYFGEPRGIRVLEN GEREGYNTMKYSESEIRRIAHVAFQSAQKRKVCVSGKANVLETTLEWREIFEEIGKEYPDVELSHMYVDNAAMQ LVRAPKQFDVIATGNIFGDILSDEASMLTGSIGMLPSASLDENGKGLYEPHSGSAPDIAGQNKANPLATILSLAML LRYSLNDEARAQQVENAVQKVLQOGLRTSDIYEEGTKLVSCEMGDAVLAAAL
104	1044	MAAFNTQKVLVSVHWTDAYFTFTCTRDESLRFENGQFVMVGLMVDGKPLMRAYSASANWEEHLEFFSIKVQDGPL TSRLQHLKVGDVVLISKKPTGTLVAGDLNPGKHLVLLSTGTGIAPFLSITKDPEIYEQFEKIIIVHGVRYKKDLAY YDRFTKELPEHEYLGDVKEKLIYPIVSREEFEHGHRLTDLMSVGKLFEDIGLPKINPQDDRAMLCGSPAMLKDT CKVLDDFGLTVSPKTVRGDYLIERAFVDQ
105	1046	MKYISTRGETAHKPFSEVLLMGLAPDGGMLPEHYPOIGRETLDKWRGLAYPELAFEIMRLFVTDI PEDDLRDLN RTYTEAAFGTKEITPVRTLSDGIKIQALSNGPTLAFKDMAMQFLGNAFEYVLNKEGKKNLNLGATSGDTSAAEYA LRGKKGVNVMFLSPDGKMSAFQRAQMYSLQDENIHNIHAVKGMFDDCQDIVKAVQNDAAFKEKYHIGTVNSINWGRI VAQVYYYFAGYFNATSSNDETVSFCVPSGNFNVCAHIAKQMGPIRRLIVATNENDVLDEFFKTGAYRPRNSAH TYVTSSPSMDISKASNFERFVFDLMDRDPAEINTLWAEVAAGKGFDRFALDKVGGKYGTSGKSTHADRLATIKQ VYEQDQELIDPHTADGVKQVAREVREEGEMVVCLETALAAKFDTIREAVGDAIIPRAALEGLENLPQRVQTVVNS ADAVKGIIEQTLA
106	1053	MKKTVFTCAMIALTGTAQAQELQTANFTVHTDLSSISSTRAFLKEKHAKHISVRADIPFDANQIRLEAGFG RSKKNINLETDENKLGKTKNVKLPTGVPENRIDLYTYTQTLSDSLNFRVAGLGFESSKDSIKTKHTLHSS RQSWLAKVHADLLSQLGNGWYINPWSEVKFDLSRYKLNTGVTNLKKDINQKTNGWGFGLGANIGKKLGESASIEA GPFYKQRTYKESGEFSVTTKSGDVSLTIPKTSIREYGLRVGIK
107	1070	MTQTNRVIIIFDTTLRDGEQSPGAAMTKEEKIRVARQLEKLGVDII EAGFAAASPGDFEAVNAIAKTIKSTVCSLS RAIERDIRQAGEAVAPAPKKRIHTFIATSPIHMEYKLMKPKQVIEAAVKAVKIAREYTDDEVFSCEDALRSEIDF LAEICGAVIEAGATTINIPDTVGYSIPYKTEEFFRELIAKTPNGGKVVWSAHCHNDLGLAVANSALAKGGAQVE CTVNLGERAGNASVEEIVMALKVRHDLFGLETGIDTTQIVPSSKLVTITGYPVQPNKAVGANAFSHESGIHQD GVLKHRETYEIMSAESVSWATNRLSLGKLSGRNAFKTLADLGI ESESEALNAAFARFELADKKREIFDEDLHA LVSDMGSMNAESYKFISQKISTETGEEPRADIVFSIKGEEKRASATGSGPVDALFKAIESVAQSGAALQIYSVNA VTQGTESQGETSVRLARGNRVVGQADTDVLVATAKAYLSALSLEFSAAKPKAQSGTI
108	1073	MIKISTRFDAGSVVVKDLTDPSNIRLALRPDNASDFAQWYFRLQGAAYQNCIMHFENAAEAYPKGWEGYQACAS YDRRNWFRVPTS YENGVLTVNHTPLSNSVYYAYFEPYSEEQHLNLLGDAQSGSLCRIDDLGSTVQGRDINLLTIGN QVESDLKIWITARQHPGETMAEWFIEGLLGRLLDPQDPTARALLDRATFYIVPNMNPDGSALEGNLRTNAAGANLNR EWENPTVEKSPEVFFVREKMLETGVDLFDIHGDEGLPFVVFAGTEGVPNYPRIAALEAQFNALLNASPDFQDE YGYEKDAPGEANMTLATNWNVRNRENCCLAYTLEMPFKDNANLPDDDFGWNGQSRSLRLEAALSAILNVIGDLR
109	1127	MATLSDKTILVTGASQGLGEQVAKAYAAAGATVILVARHQKLEKVDYDAIVEAGYEPFPAICFDLISAEKEFEHF AATIAEATQGLDGI VHCAGYFALSPLDFQTVAEWNQYRINTVAPMGLTRALFPLLKQSPDASVIFVGESHGET PKAYWGGFGASKAALNYLCKVADEWERFGLNLRANVLVPGPINSFQRIKSHPEAKSERKSYGDVLPFVFWWASAE SKGRSGEIVYL
110	1131	MALLQISEPGMSAAPHRRHLAAGIDLGTNSLVATVRSGSAACLPDAEGRVTLPSVVRYLENGGIEVGKTALSAQK TDPLNTVSSAKRLIGRTLADLHONTHLYPYRFGDNQRIELHTRQGVKTPVEVSAAELKTLKSRAEETLGGDLVGV VITVPAYFDDAQROATKDAARLAGLNLRLNEPTAAAIAYGLDNASEGTFVVYDLGGGTFDVSVLQTLKGLFEVK ATGGNSALGGDDFDHRLFCRLLQNGLSQLNEQDSQLLSLVRAAKEQLTTQTEARIQATLSDGMAIDTISRAEF HNLTQHLVMKLTLEPVTQALKDAGVGKNEVKGVIMVGGSTRMLHVQQAATFFGQTPPLNNLPDEVVVALGAAIQANV LAGNKTGDEWLLLDVTPLSLGLEYGGLAEKIIIPRNSTIPTARAQDFTTFKDGQTAMTIVVQGERELVADCRSLA KFTLRGIPPMAGAAARIVTFQIDADGLLSVSAQEQTSGVQAQIEVKPSYGLDDDTITQMLKDSMSNAEDMAARA

		RAEAVVEAESLTDAVNAAELESDLLDAEELQQIRQGIADLQGRKDGKAEDIRAAAAKLSITDNFAAKRMNRNI QRALTGQSVNDI
111	1150	MPEYRSKSTSTHGRNMAGARALWRATGVMETDFGKPIIAVANSFTQFVPGHVHLHNMGQLVAREIEKAGATAKEFNT IAIDDDGIAMGHSGMLYSLPSRDLIADSI EYMVNAHCADALVCISNCDKITPGMLIAAMRLNIPTIFVSGGPM EAGK VIGVANIQPERRLDLIDAMIESADDNVSNRQVEEVEQNACPTCGSCSGMFTANSMNCLTEALGLSLPGNSYLA TH AGRKELFLEAGRMIVEITKRYEONDET VLP RS IATFKAFENAMTMDIAMGGSTNTILHLLAVANEAGVDFK MADI DRLSRVVP CICKTAPNNHDYIMEDVHRAGGIFAILKELDKAGKLHTDVHTIHAPTLKD AIEQWVDVTNPENTRAIER FKAAPGGVRTTQAFSQNRMWKTLDDLREKGCIRDVAHAYSQDGG L AVLFGNIAERGC VVKTAGVDESILKFTGRAR VFESQEDAVEGILGNQIVAGDIVIIRYEGPKGGPGMQEMLYPTS YLKS KGLGKACALLTDGRFSGGTSGLSIGHAS PEAAEGGAIGLVHEGDTVEIDIPNRSIHLAISDEELAARRAEMEARGSKAWKPKNRDRVVS AALRAYGAMATSADK GAVRDVAQIER
112	1201	MRIVEKAYTFDDVLLVPAHSTVLP RDVKLQTKLTREITLNLPLLSAAMDVTVEARLAISMAQEGGIGIIHKNMPPE MQARAVSKVKRHESGVVKDPVT VAPTTLIREVLEMAQRKRKMSG LPPVENGKVVGIVTNRDLRFENRVDLPVSAI MTPRERLVTVP EGT SIDEARELMHTHKVERVLV LNEKDELKGLITVKDILKTTFEPNANKDSEGR LRVGA AVGTGG DTEERV KALVEAGVDVIVVDTAHGSQGVIDRV RVWKETYPHIQVIGGNIATAKAALDLVAAGADAVKVIGPGSI CTTRIVAGVGPQLTAIHNVAEALKGTGVPLIADGGIRFSGDIAKALAAGAYSVM LGGMFAGTEEAPGEI ELYQGR SYKSYRGMGSLGAMSQGSADRYFQDKTDSTDKYVPEGIEGRVVPYKGPVNI IHQLTGGLRSSMGLGCANIAEMHE KAEFVEITSAGMSESHVHDVQITKEAPNYHR
113	1206	MKGDR LVI RELNKNLGLLLVTINQYFLHARILKNWGFEE LGHEFFKQSIVEMKAADDLIERILFLEGLPNLQELGK LLIGESTEEIIACDLTKEQEKHEALLAAIATAEAQQDYVS RD LLEKQKDTNEEHIDWLETOQELIGKIGLPNYLQT AAQED
114	1228	MKPVNIGLLGLTVGGGTA AVL RDNAEEISRR LGREIRISAVCDLSEKARQTCPSAAFVKDPFELVAREDDV VV ELFGGTGIAKDAVLKAIENGKHIVTANKLLAEYGN EIFPLAEKQNVIVQFEAAVAGGIP I I KALREGLAANRIKS IAGIINGTSNFILSEMREKGS AFADVLKEA QALGYAEADPTFDIEGNDAGHKITIMSALAFGTPMNF SACYLEGIS KLDSDRIKYAEELGYRIKLLGITRKTGKIELRVHPTLIPESRLLANVNGVMNAVVRVNMVGETLYY GAGAGALP TASAVVADIIDIARLVEADTAHRVPHLAFQPAQVQAQTILPMDEITSSYYLRVQAKDEPGTLGQIAALLAQENVSI EALIQKGVIDQTTAEIVILTHSTVEKHIKSAIAAEALDCVEKPITMIRMESLHD
115	1231	MTQKEKHFE EY AALATLPLRDVVVYPHMLPLFVGRPKSIAALENAITREEPVFLLAQTDAAVEEPIAADLYQTGT VAQVLQVLKLPDGTVKVLVEGLYGRVLTIEDTGGLFVSHIETVVEEDTG GNTDLEAVRRTLLAQFEQYAKLNKKI P AEIIGSINGIAENSRLTDVAAHLQLKLAQRQOILEIPEIGKRMEFLLAQLESELDIMQAEKRIRGRVKRQMEKS QREYYLNEQIKAIHKELGEEDENGELDALEADIKKAGMTKEAEKCLSELKKLKMPPMSAESTVVRNYIDT LLEL PWKKKS RVSKDIAGAGLVLDADHYGLEKVKERILEYLA VQKRM DKLGPILCLVGP PGVKTSLGESIAKATGRKY VRMALGGVRDESEIRGHRRTYIGSMPGKILQNMAGVKNPLFL LDEIDKLGNDFRGDPASALLEVLDPEQNNKFA DHYAEVDYDLSVDFIATSNLSNIPTLLDRMEIIRLSGYTEDEKINIAMQYLVPKQMKRNGVKEGELAIEESA VR DIIRYTTREAGVRSLDREIAKICRKVVMQITLDEDKKRLSETK KTSKAKPKAVKVNKNLHDYLGVRRFDYGVAES ENRIGQVTGLAWTEVGGEELLTVEAAALPGKGVICQTGQLGDMKESVSAAWSVVRSAESVGLAPDFYEKKDIHIH VPEGATPKDGPSAGIAMTLAAVSFTKIPVRADVMTGEITLRGEVLP IGGLEKLLAALRGGIKHVLI PKDNVKD LEEIPENVKTGLTIHPVKWIDEVLALGLESQPEPWAEP SGAEEAAESASKPKPRSRATKH
116	1240	MISTNGITMQFGAKPLFENVS VKFEGENRYGLIGANGSGKSTFMKILGGDLEQTAGEVAIENGVR LGKLRQDQFAY EDMRVLDVMMGHTEMWAAMTERDAIYANPEATEDDYMKAAELEAKFAEYDGYTAEARAAELLSGVGISED LHNK MAEVAPGFKLRLVLLAALFSKPDVLLDEPTNNLDINTIRWLEGVLNQYDSTMI IISHDRHFLNEVCTHMADLDYN TTITYPGNYDDYMLASAQSRERALKDNAAKEKQLQELQEFVARFSANKSKARQATSR LKQADKIKSEMVEVKPSTR QNPYIRFEADEKAKLHRQAVEVEKLAKRFETQLFKNLNFILEAGQRLAIIGPNAGKSTLLKLLAGAYNPEYSDGL LPDEGTIKWAEKASVGYYPQDHENDFDVDMDLSEWMRQWQEGDDEQVIRGTLGRLLFGSNDVVKVVLSSGGEKG RMLYGKLLLLKPNVLVMDPTNHMDMESIESLNMALEKYNGTLIFVSHDRQFVSSLATQIIELDGKGGYEHYLG DY ESYLEKKGVA
117	1252	MSTLSYRDAGVDIDAGDQLVENIKPFAKRTMRPEVLGDLGGFGALVEIGKKYQNPVLVSGTDGVTGKLKLAFDWD KHDTVGIDLVAMSVNDILVQGAEPFLFDYFACGKLDVPRATDVIKGIAQGCESG CALIGGETAEMPGMPVGEY DLAGFAVGVEKENVITGRSIGVDVVLGLASNGAHSNGYSLIRKIIERDNPDLDAEFDNGKTLREAVIAPTRLYV KPI LAALEKFTIKGMAHITGGGITENVPRVLPENTVAQIDAKSWELPKLFQWLQKAGNVETQEMYRTFNCGIGMVV IVAAEDADAVQGLLGEQGETVYRLGLIRERQGEHQQTQVA
118	1301	MSMENFAQLLEESFTLQEMNPGEVITAEVVAIDQNFVTVNAGLKSESLIDVAEFKNAQGEIEVKGDFVTVTIESV ENGFGETKLSREKAKRAADWIALEAMENGDI LSGIINGKVKGGLTVMISSIRAFLPGSLVDVRPVKDTSHFEGKE IEFKVILDKKRN NVVSRRAVLEATLGEERKALLENLQEGSVIKGIVKNITDYGA FVDLGGIDGLLHITDLAWRR VKHPSEVLEVQGEVAKVLKFDQEKQRVSLGMKQLGEDPWSGLTRRYPQGT R LFGKVS NLT DYGA FVEIEQIEGL VHVSEMDWTNKNVHPSKVVLGDEVEVMILEIDEGRRRISLGMKQCQANPWEFFAANHNGDKISGAVKSI TDFGV FVGLPGGIDGLVHLSDSLWTESGEEAVRKYKKEEVEAVVLAI DVEKERISLGIKQLEGPFGNFISVNDKGS LK GSVKSVDAKGAVIALSDEVEGYLPASEFAADRVEDITTKLKEGDEVEAVIVTVDRKNRSIKLSVKAKDAKESREAL NSVNAAANANAGTSLGDLKAKLSGEQE

119	1302	MTKSELMVRLAEVFAAKNGTHLLAKDVEYSVKVLVDTMTRSLARGQRIEIRGFGSFDLNHRPARIGRNPKTGERVE VPEKHVPHPFKPGKELRERVDLALKENAN
120	1313	MMSVTVETLENLERKVVLSLPWSEINAETDKKLKQTRRAKIDGFRPGKAPLKMAIQMYGASAQNDVINELVQRRF YDVAVAQELKVAGFPRFEGVEEQDDKESFKVAAI FEVFPEVVIGDLSAQEVEKVTASVGDAEVDQTVIELRKQRT FNHVEREARNGRV I DFEGKIDGEPFAGGASKNYAFVLGASQMLPEFEAGVVGKAGESKDVTVNFPEDYHGKDV AGKTAVFTITLNNVSEATLPEVDADFAKALGIADGDVAKMREEVQKNVSREVERRVNEQTKE SVMNALLKAVELKA PVALVNEEAARLANEMKQNFVNQGMADAANLDDLDMFKEQAERRVSLGLILAKLVDENKLEPTEEQIKAVVANFA ESYEDPQEVIDWYYADPSRLQAPTS LAVESNVVDFVLGKAKVNEKALS FDEVMGQA
121	1320	MQIILLEKIGGLGNLGDIVTVKNGYARNFLI PAGKAKRATEANMKEFEARRAELEAKQAEILADARVRQEKLDGQT VTVAQKAGVDGRLFGSVTNADIAAAI VAAGIEAVKANVRLPENGPLKAVGEYEVEVALHTDAVAKITVAVVAATE
122	1323	MRHYEIVFIVHPDQSEQVPAMVERKYTMIAEANGKIHRLEDWGRRQLAYPINKIHKAHYVLMNIETTPEVVEELET AFRFNDAILRHLTIKTKHAVTEASPM LGGEKAKNLLSGASEEAVAQ
123	1324	MSQHRKLIILGSGPAGYTA AVYAARANLPV IITGIAQGGQLMTTTEVDNWPADADGVQGP ELMARFLAHAERFGT E I IFDQINAVDLQKRPFTLKGDMGEYTC DALIVATGASAKYLGLPSEEFAGKVSACATCDGFFYKNQDVAVVGG GNTAVEEALYLANIAKTVTLIHRRSEFRAEKIMIDKLMKRVEEGKIILKLESNLQEVLDGDRGVNGALLKNNDGSE QQIAVSGIFIAIGHKPNTDIFKGQLEMD EAGYLKTKGGTADNVGATNIEGVWAAGDVKDHTYRQAITSASGCQAA LDAERWLGSONI
124	1328	MTDTAENQTQNNWQAGHPSIRS FVLRSHTAAQQR AIDTLWDSFGIDYQATPADLDARFGSSRPKILEIGFGMG TATAEIAARRLPETDFLAI DVHGPVGNLLKLIDENHLENIRVMRHDAVEVENMLQDGSGLDGIHIFFPDPWHKKRH HKRRLIQAPFI AKLLPKLKTGGYIHLATDWE EYAQMQMLEVLSSFDSLQNTAADYAPTDPYRPETKFEARGKRLGHG VWDLVFKRIG
125	1339	MKASQFFISTLKEAPAEALASHKLMIRAGLIKANASGLYT WMPMGLRVLRKVENVREEMARAGSV ELLMPVQ AELWQESGRWEFYKELLRLKDRHDFCMGPTCEEVIADI VRKEINSYKQLPKNFYHIQTKFRDEVPRFPGVMRA REFVMKDAYSFHADYASLQTTYQDMYDAYCRI FTRLGLAFRPVAADTGSIGGTSGSHEFQVLAESGEDVIAYS DTS YAANIELAPTLPLKGERAAAQAE LVKVTNPVKTIDSLVDFLSIPIEKTLSIVVEGENEGELILLLL RGDHEFND IKAEKLAGVKSPLTMASPA AIVEQFGANGGSLGPVGFAGKVYADFA TEKGADWVIGANEDDYHYTG FNFRDAAEP EFVDLRNVVEGDESPDGQGRKLARGIEVGHV FQLRDKYTQAMNVSFLDNNGKSQIMEMGCYIGITRVVAAAIEQ NNDEKGI IWKAMAPFEVVIVPMNYKSDTVREAADKIYAELLAAGADVLLDDRDERAGVLLNDSELLGIPHRIVI GDRALKEGNVEYAERRDNEAQA VAIGEIVARVTASLNA
126	1341	MSQQLHDVDPIETQEWLDALSSVLEYEGGERAQYLL ENLVKYCRDKGVRMPHGTTTPYLNTVSVENEKGI PGDQNI EHRIRAFVRWNA AIVLRAGKKDLELGGHIA SFQSAATMYE VGFNFHFWKAKGEGEGDLVFFQGHVAPGIYARAFV EGRLTEDQLNNFRQEV DGHGLPSYPHPLL P DFWQFP TVSMGLGPIMAIYQARFLKYLESRGLAKTKGRK VWCFCG DGEMDEPESQGAIALAAREGLDNLI FVINCNLQRLDGPVRGNGKIIQELEGNFAGAGWNVVKVIWGRRWRLLAKD KDGLLRQRMEECLDGYQTYKSKDGAYVREHFFNTPEL KALVADMTDEQLWALNRGGHDPQKV NAYDRAANHADG KPTVILAKTIKGYMGASGEGQNVAHQAKMDKASLQFRDRFDI PVTDEQIESGDLPYLT FAPDTEEYKYLHARR DALGGYLPQRKPTQEVLEVPELSAFDAQLKSSGEREFSTTMAFVRILSTLLKDKKIGKRVPVIVPDESRTFGMEGM FRQYGIWNPKGQYTPQDKDQLMFYKESVDGQILQEGINEPGAMADWIAAATS YANSNFAMIPFYIYSMFQFORI GDLAWAAGDMHARGFLLGGTAGRTTLN GEGLOHEDGHSHIQADLIPNCVSYDPTFQYEVAVIVQDGLRRMYANNED VYYYITLMNENYTHPDMPEGAEQDILKGM YLLKAGGKDKVQLMGSGTILQEV IAGAE LLLKADFGVEADIWSCPS FNLHLDRAVEVERFNRLHPLAEKVPFVTSQLQGHGDPVIAATDYIRSYADRI RAYIPNDYHVLGTDGFGRSDSRA NLRRFEVDRYNVAVAAALAEQGVSKETVQQAIEKYGIKADSAPSWKR
127	1342	MSIVEIKVPDIGGHENVDII AVEVKAGDTIAVDDTLTLETDKATMDVPADAAGVVKEVKVKGDKISEGGVILTV ETGAAAAEAPAAAEAPAPAPAAAPAAAGGATVQVAVPDIGGHTD VDVIAVEIKVGD TVAEDDTLTLETDKATMDV PCTAAGVVKAVFLKVGDKVSEGS AIEVETVGSAAAAPAAQAAQAAAPAAAPPTAAAAPAAAPAPSAPAAAKIDEA AFAKAHAGPSARKLARELGVDLGQVKGTGLKGRIMGDDIKAFVKSVMQGGAAPAAASASLGGGLDLLPWPVKVDFS KFGNVEVKELSRIKKISGQNL SRNWVVI PHVTVHEEADMT EEFRKQLNKEWEREGVKLSPLAFI IKASVSALKA FPEFNASLDGDNLV LKNYFNIGFAADTPNGLVVPVIKDV DQKGLKQISQELTEL SKKAREGKLPQEMQACFTIS SLGGIGGTGFTPIVNAPEVAILGVCKSQIKPVWNGKEFAPRLMCPLSLSFDRHVIDGAAGMRFTVFLAKLLKDFRR ITL
128	1343	MGNFLYRGISCQQDEQNNGQLKPKGNKAEVAIRYD GKFYD GKATHGPSVKNAVYAHQIETGLYDGCYISTTTDKE IAKKFATSSGIENGYIYVLRNDFLFGQYSIF EYEVHEPENPNEKEVTIRAEDCGCIP EEVIAKELTEIN
129	1344	MALVELKVPDIGGHENVDII AVEVNVGDTIAVDDTLTLETDKATMDVPAEVAGVVKEVKVKGDKISEGGLIVV EAEGTAAAPKAEAAAAPAEAPKAAAPAPQAAQFGGSADA EYDVVVLGGGPGGYSAAFAA DEGLKVAIVERYKTL GGVCLNVGCI PSKALLHNAVIDEVRHLAANGIKYPE PELDIDLMLRAYKDGVSRLTGGLAGMAKSRKVDV IQGDG QFLDPHHLVSLTAGDAYEQAAPTGEKKIVAFKNCIIAAGSRVTKL PFI PEDPRIIDSSGALALKEVP GKLLIIGG GIIGLEMGTVYSTLGSRLDVVEMMDGLMQGADRDLVKVWQKQNEYRFDNIMVNTKTVAVEPKEDGVYVTFEGANAP KEPQRYDAVLVAAGRPNGLISA EKAGVAVTDRGFIEVDKQMR TNVPHIYAIGDIVGQPM LAHKAVHEGHVAAEN CAGHKAYFDARVIPGVAYTSPEVAWVGETELSAKASGRKITKANFPWAASGRAIANGCDNGFTKLIFDAETGRIIG

		GGIVGPNGGDMIGEVC LAIEMGCCAADIGKTIHPHTLGESIGMAAEVALGTCTDLPPQKKK
130	1347	MNPF LN TAFKAARRAGOMMI RAAGNLDAVKTD SKAFNDFVSDVDRNSEI ILVEALKEAYPHHKITCEESGSHGKAA AEYEWIIDPLDGTN FLHGHPQYAI SMALLHKGVLQEALVYAPERNDVYMASRGKALLNDRRIRVSNRIELNRCL IGTGFPVVDQSMMDKYLAILKDFLAKTAGGRREGAASLDLCAVATGRFDGFFEFNLKPWDIAAGALIVQEAGGIVT DMSGEDGWLESGDIVAANPKVLAQMLKII SAHV
131	1356	MTQYTLKQASVLLQSKQISAVELASAYLAAIAEKNPALNGYITIDQDKTLAEARAADERIAQGNASALTGPVPVAYK DIFCQTGWRSAKSKMLDNFISPYTATVVQNLLEDGMVTLGRTNMDEFAMGSTNENSFYGAAKNPWNLEHVPGGSS GGSAAVVAARLAPAALGSDTGGSIQRPASHCGITGIKPTYGTVSRFGMVAYASSFDQTGPMAQTAEDCAILLNAMA GFDPKDSTSLEREKEDYTRDLNQLKGLKIGLPKEYFGEKNSADVLTALQNTIDLLKAQGAELIEVSLPQTKLSIP AYYVLAESAESTNLSRYDGVRYGHRAAQFADLEEMYGKTRAEGFGSEVKRRIMIGTYVLSHGYYDAYYLKAQKLRR LVADDFTQAFARCDLILAPTAPTAAFKIGADASPVEYLSDIYTI AVNLAGLPALTLPAGFSGGGLPVGVLVGNV FAEAKILGAHQIQLNSDWHGKRPE
132	1358	MTWETVIGLEI HVQLNTKSKIFSGASTAFGAEPNAHASVVECALPGVLPVMNREVVEKAIKGLALDAKINQKNVF DRKNFYFDP LPKGYQISQLDLPIVEHGKLEIVVGDDVKTINVTTRAHMEEDAGKSVHEGLNGATGIDLNRAGTPLLE VVSEPEMRSAAEA VAYAKALHSLVTWLDICDGNMAEGSFRVDANVSVRPGKQEEFGTRREIKNLNSFRFLEQA INY EAEAQIEILEDGGKVQQA TMLFDPEKGETRVMRLKEDAHDYRYFPDPLLPV IISDAQMQAKAEMPELPKEMAAR FVADYGVSEYDARLLTASRAQAAYFEAAKESGQGLTANWMNGELAAALNKEGMELADSPITAPRLAALVGKIAD GTLSSKLAKKAFEAMWAEPEATIAEII EKHLQOMTDTGEI EAMVDEVLANNAKAVEQKSGNEKALNAIVGQVMK ASKGKANPAQVQELIKAKLA
133	1372	MSNENRTCSFCGKSKSHVKHLIEGENAFICDECVSNCIEILHEDGNDGTPSESAGGEPEESGKLP TPAEIVANLND HVIGQEQAKKALAVSVYNHYKRLRHPKAGANVELSKSNILLIGPTGSGKTL LAQSLARKLDVPFVMADATTLTEAG YVGEDVEQIITKL GKCD FDEKAQRGIVYIDEIDKISRKSDNPSITRDVSGEGVQALLKLEGTVASVPPQGGGR KHFNQEFINVDTTNLFICGGA FGLEKVIQRTEKGGIGFGASVHSDENADITKLF GIVEPEDLIKFLIPELI GRLPVIATLEELDEDALINILTEPKNALVKQYQALFGMENVELEFEEGALRSIARQAMERKTGARGLSIVERCLL DTMYRLPDLKGLKKVVVGKAVIEEGREP ELVFES
134	1379	MTVKT P VYLDYAATPPVDKRAEKMI PYLTETFGNPASNSHSFGWEAEAEVEKARADIAALINADSKEIVFTSGAT ESNNLAIKGA AHFYKSKGNHLITVKT EHKAVLDTMRELERQGYEVTYLDVQENGLVDLDVLKAAIREDTILVSVMW VNNEIGVVQDIPAIGEICRERKII FHVDAQAQCGKVPVDVEAAKVDDLMSGKHVYGPKGIGALYVRRKPRVRLEA QMHGGGHERGFRSGTLPTHQIVMGAEAFRIAKEELAQDTAHLKLRDIFLKGIEGIEEVYINGDLEHRVPNNLNVS FNFVEGESLIMAVKELAVSSGACTSASLEPSYVLRALGRNDELAHSSLRITFGMTTEEEVQFAELIKSKIGKL RELSPLWEMFKDGI DLNSIEWAAH
135	1390	MSSTPNKQAGYPRLVADIGGTNARFALETAPRVIEKAAVLPCKDYDTVTD A VRAYLNQSGATAVRHAAFAIANPIL GDWVQMTNHHWAFS IETTRQTLGLD TLILNDFTAQALAVTQTSSKDLMOVGKGKPVFEAPKAVIGPGTGLGVSGL VHSHAGWVALAGEGHTSFPPFDDMEVLIWQYAKNKYGHVSAERFLSGAGLSLVYEALAAKQAKPAKLPMPSEITE KALSGASPLCRQTLDFCAMLGTVASNLALT LGARGGVYLCGGIIPRVLEYFKTSPPFRSRFENKGRFEAYLAAIPV YVVLSEFPGISGAAAALDNHLRN
136	1392	MSTQTNFDLVLF GATGDLAMRKL LCLYQAHVAGLHLPEGRILGVSRSELDT EGFLAKVETSSKIHVKENFSDEAW ASFVERFAYLKVDVTQPD DFAALGD LVKARKETDNVVIYLS TAPKFFAQACENLAAIGLNADNRVVLKPLGTDL ASSQOINTDVARYFKEGQIYRIDHYLGKESLQNL LALRFANVMFEPLWNNKYIESVQLTIAEQLGVEERGEFYDIT GALRDMVQNHLMQMLCMTAMEAPASLDADAVRDEKVKV IKS LKPLTVESVNNENVVRGQYTAARGMNGYLEEINVPQ DSFTETYVAIKAEIENERWKGVFFYLRTGKRMAGKVAEIVLNFKDLNSHIFEGSRTAPNRLVIELQPYESVRLYTQ MKTPGAGNKVETVPLATDLGKALEGRRAEAYERLLLDVINGKLALFNRRDELEAAWEYVMPILENWTNNTTPPHGY GAHSWGPEAARELLARDGHKWHEEQ
137	1425	MSEQNHQPQTEPQLDENQII ALRREKLHNI RQQRNAYPNDFKRDSFAADLHAQYGEIGKEELDPOGIPVKVAGRMML KRQMGKASFATIQDVSGQIQLYLNNKGVSQEVLD DFNHWDLGDIVGAEGTLFKTNHGELTVRVSGIRLLSKSLRPL PDKHKGLSDQETKYRQRYVDLIANEESRNTFIKRSQIIQSVRNFVGEHYLEVETPMMHPIPGGATAKPFVTHHNA LDIPLYLRIAPELYL KRLVVGGLERVFEINRSFRNEGMSVRHNPEFTMIEFYEA FSDYERMMQMAEDIIRNASRTV NGTANITYNGKEVDLES PFERLTILEAIKKYNPHYTDEQLNDAEWLKEIVKHGESLPPSPGIGSLQALFEGCAE GKLWNPTFIVDYPVEVSPARASDTKQGLTERFELFVVGRELANGYSELNDPEDQAERFKAQVVQKDAGDDEAMHY DADYIRAMEFGLPPTGGCGIGIDRLVMLLTDSQTI RDVILFPQMRPE
138	1429	MRKKL TALVLSALPLAAVADVSLYGEIKAGVEGRNYQLQLTEAQAANGGASGQVKVTKVKAKSRIRTKISDFGSF IGFKGSEDLGDGLKAVWQLEQDVS VAGGGATQWGNRESFIGLAGEFGTLRAGRANQFDDASQAIDPWSNNDVAS QLGIFKRHDDMPVSVRYDSPEFSGSGSVQFVPIQNSKSAITPAYYTKNTNNNLTLVPAVVGKPGSDVYAGLNYK NGGFAGNYAFKYARHANVGRNAFELFLIGSGSDQAKGT DPLKNHQVHRLTGGYEEGGLNLALAAQLDLSENGDKTK NSTTEIAATASYRFGNAVPRISYAHGFDFIERGKKGENTS YDQIIAGVDYDFSKRTSAIVSGAWLKRNTGIGNYTQ INAASVGLRHKF
139	1445	MSDDKSKALAAALAQIEKSFKGKAIMKMDGSQOEEENLEVI STGSLGLDLALGVGGLPRGRIVEIFGPESGKTTLC LEAVAQCQKNGGVC AFVDAEHA FDPVYARKLGVKVEELYLSQPD TGEQALEICDTLVRSGGIDMVVVD SVAALVPK

		AEIEGDMGDSHVGLQARLMSQALRKLTGHKKTNTLVVFQINQIRMKIGVMFGSPETTTGGNALKFYSSVRLDIRRT GSIKKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYEGISWEGELIDIGVKNDIINKSGAWSYNGAKIGQGKDN VRVWLKENPEVANEIDAKIRALNGVEMHITEGTQDETGERPEE
140	1452	MQNI FDLVIRGKSLTPIVQGGMGVGVSAASGLSSAVARENGIGTASVDLRHLHEDLLAESQINPSEEKYTSLNCT ALDREIQAKSASEGKGLIAVNVMAVKDHAAYVRQACESGADAVVMGAGLPLDLPENTEGYHKDVALLPILSESR GINIVLKRWMKKGILPDAIVVEHPAHAAGHLGASTVEGVNDAKFDFKRVIEETFEVFKSLGLESEKIPILLAGGMA NFEKVKTALKNWGASAVQIGTAFATVEEGDAHLNFKKTLAGAETEKVVEFMSVAGLPARGVRTKFLDSYIKRESKL QTNADAPRRCTQGLNCLTSCGLRDGLSKAGQFCIDIQLAAAFRGEVDKGLFFRGKDRCPSAMPSAPSARRYNIC
141	1457	MSQLANAI RFLSADAVQKANS GHGPGAPMGMAEMAETLWTKFLNHN PANPKFYNRDRFVLSNGHASMLLYSLLHLTG YNLSIEDLKNFRQLHSTKPGHPEYGYTDGVETTTGPLGQGIANAVGMALAEKILAAEFNKDGLNIVDHYTYVFMGD GCLMEGVSHACSLAGTLGLGLKLVLYDDNNISIDGKVDGWFTENIPQRFESYGWVVPNVNGHDTAAIQAIEAA RAETGKPSIICCKTLIGKGSANKEGSHKTHGAPLGADEIEATRKH LGWTPAF EIPQEIYDAWNAKEQGAKEADW NELFAQYQAKYPAEAEFVRRMDKKLPDNFDEYVQAALKEVCAKAETIATRKAQSNSIEILAKELPELVGGSADLT PSNLTWNSNSVSTRDKGKNYIHYGVREFGMGAIMNGLVLHGGVKPFGATFLMFSEYERNALRMAALMKINPVFVF THDSIGLGEDGPTHQPIEQTATLRLIPNMDVWRPCDTAESLVAWAEAVKAADHPSCSLIFSRQNLKFQARSEQQLND IKRGGYVISEAQGNAQAVIIATGSEVELALEAQKALAAQNI AVRVVSMPSSTNVFDRQDAAYQAAVLPEGLPRIAVE AGHADGWYKVGNGAVVGINRFGESAPADLLFKAFGFTVDNVVDTVKSVL
142	1471	MSKKRVLTGVTTFGIPLHNGYVGAI RPAVRAAQNLDTESFLFLADYHGIKCHEPEMIHQSTQAVAATWLACGLDP ERTTFYRQSDTPEVMELNWI LTCITAKGLMNAHAYKAAVQANAENGQEDPDGFMGLFSYPI LMTADILMFNAN EVPVGRDQIQHVEMARDIAGRFRHFRLEFTLPEVKIDENVELLVGLDGRKMSKSYGNTIPLWENDKKTQKSVNKI ITNMKEPGEKQPDSEPLFEIYKAFSTPSETVEFTKMLADGLAWGEAKKLLAAKINAELAEPRERYNELTADPSQI EELQAGAAKARKEARELLDKVRDAVGIRPLK
143	1472	MRYDKLTAKFQQALAEQSLALAADGSYLEAGFVLKALLDDQNSGAAALLAHAGVNVQVQKRLQOHLNSLPKVS QGGDILPSRELQAVLNLMDKAATKRSDAYIASELFLALVQONDATGKILKEAGATEQNINAAIDAVRGQNVNDA NAEDQRDALKKYTLDTQRARDGKLDPVIGRDEIRRAIQVLQRRTKNNPVLIGEPGVGKTAIVEGLAQIRVNGEV PESLRNKRLLVLDLALAIAGAKYRGEFEERLKGVLNDLAKDDGNTLIFIDEIHTLVGAGKTGDAMDAGNMLKPALA RGELHCIGATTLEDEYRQYIEKDAALERRFQKVLVGEPSVEDTIALRLGLQERYEIIHHGIDITDPAIVAAELSDRY ITDRFLPKAIDLIDEAASRVKMEKETKPEAMDKIDRRLIQLRMEKAHVEKEKDDASKRLELIDEEINGLOKEYA DLDEIWKAEKAISDGAANIKKQIDEVKIKIEQAKRQGD LALASKLMEYEDLEHLEKQRAAAERADTSTKPANKLLR NNVGAEEIAEVVSRMTGIPVSKMMEGERDKLLKMEVLRHVVVGQDEAVRAVSDAIRSRSGLADPNKPYGSFLFL GPTGVGKTELKALAGFLFDSEDHLIRIDMSEYMEKHAVARLIGAPPGYVGYEEGGYL TEQVRKPYSVILLDEVE KAHPDVFNILLQVLDDGRLTDGQGRVDFKNTVIVMTSNIGSQHIQQMGIDYEAKEVVMEDVKEHFRPEMINRI DEVVVFHGLDQDNIRNIAIKIQLKGLEKRLEKQNLRLAVSDAALDIIAKAGFDPYIGARPLKRAIQSEIENPLAKAL LAGNYAPESEIRVEADGDRLKFA
144	1506	MNLHQTVHEHAAAFAAGIADSPVLQPTKNAEHGDFQINGVMGAACKAKQNPRELQKVAEALADNAVIESAEV AGPGFINLRRLRPEFLAQNIQTALNDARFVAKTDKQPQTVVIDYSSPNLAKEMHVHGLRSSIIGDSISRVLAFMGNT VIRQNHVGDWGTQFGMLVAYLVEQQKDNAAFELADLEQFYRAAKVRFDEDPAFADTAREYVVKLQGGDETVLALWK QFVDISLSHAQAVYD TLGLKLRPEDVAGESKYNDLQPVVDDLQVKG LAVEDDGAKVFLDEFKNKEGEPAAFIVQ KQGGGFLYASTDLACLRYRIGRLKADRLLYVVDHROALHFEQLFTTSRKAGYLPENVGAAFIGFTMMGKDGKPFK TRSGDTVKLVLDL TEAVERATALVKEKNPELGADEAAKIGKTVGIGAVKYADLSKNRTSDYVFDWDAMLSFEGNTA PYLQYAYTRVQSVFRKAGEWDANAPTVLTEPLEKQLAAELKFEDEVLSQVADTAYPHYLAAYLQIATLFSRFYEA CPILKAEGASRNSRLQLAKLTGDTLKQGLDLLGIDVLDM
145	1518	MSQKLILVLNCGSSSLKGAVALDNGSGEVL LSCLAELKNLPDAYITFKVNGEKHKVDLSAHPDHTGAVEALMEELKA HGLDSRIGAIGHRVVSGGELYSE SILVDDEVIAIGIEKCIPLAPLHNPALHLLGLRAAQSI FKGLPNVVVFDTSFHQT MPEVAYKYAVPQELYEKYGLRRYGAGHTSYRFVADETARFLGKDKDLRMVIAHLNGASITAVANGESRDTSMGL TPLEGLVMGTRSGDIDPSVFGFLAENANMTIAQITEMLNKKSGLLGI SGLSNDCRTIEEEAAKGHKGAKLALDMFI YRLAKYIGSMAVAAGGLDALVFTGGIGENS DIIRERVIGYLGFLGLNIDQEANLKARFGNAGVITTADSKAVAVVI PTNEELMIAHDTARLSGL
146	1533	MKAYLALISA AVIGLAACSQEPAPAPAAEATPAAEAPASEAPAAEAPADAAEAPAGNCAATVESNDNMQFNTKDI QVSKACKEFTITLKHTGTQPKASMGHNLVIAKAEDMDGVFKDGVGAADTDYVKPDDARVVAHTKLIGGGEEASLTL DPAKLADGEYKFACTFPGHGALMNGKVTLDV
147	1536	MLTNI AKKIFGSRNDRLLKQYRKSVARINALEEQM QALSADADLQAKTAEFKQRLADGQTLDGILPEFAVCREASR RTLGMHRFDVQLIGCMVLHDGKIAEMRTGEGKTLVATLAVYLNALAGKGVHVTVNDYLSRDAGIMEPLYNFLGL TVGVII SDMQPFRQNAAYADITYGTNNEFGFDYLRDNMVTQDYDKVQRELNFVAVVEVDSILIDEARTPLIISGO ADDNIQLYQIMNTVPPHLVRQETEEGEGDYVDEKAHQVILSEAGHEHAEQILTQMGLLAENDSLYSAANIALMH LMAALRAHSLFHKDQHYVIQDGEIVIVDEFTGRLMGSRRWSEGLHQAVEAKEGVEIKRENQTLASITFQNYFRLYT KLSGMTGTADTEAFFQS IYNLETVIIPTRNPVQRKDFNDQIFRSAEKFEAVVKDIEECHKRGPVLVGTTSIEN SELVSKLLTOAGLPHNVLNAKEHEREALIVAQAGKGAITVATNMAGRGTDIVLGGNLKHQTDAIRADETLSDEEK QAQIAALEDGWQAEHDKVMEAGGLHIIGTERHESRRIDNQLRGRSGRQDPPGSSRFYLSFEDPLRLFALDRAAI

		LNRLAPERGVIAIEHNLLTRQIEGAQRKVEGRNFMRRQVLEYDDVANEQRKVIYSQRNEILTSKDISDLMQEIERSD VVSDLVDTYMPDPSMEEQWDIPTLENRLAAEFRLHEDIQSWLKADNAIDGQDIKERLIERIENEYAAKTELVGKQA MADFERNVMLQVIDNQWREHLAAMDYLROGIHLRSYAQKNPKQEKREAFMTFQDLWNGIKFHIASLLTSVQIEQN PVAVVEEQPIGNIQSIHSESPDMEELLGQSQTDLVTEAFNPDGTDFSPEALEARGQIVHRNDPCPCGSGLYKQCH GKLA
148	1560	MLNKDQFADNHFIRTIIEEDLESGKHTAVQTRFPEPNGLYHIGHAKSICLNFLGLAYIYDGLCNLRFDDTNPEKEN DEYVNAIKEDVEWLGFWHAGEPRFASNYFDQLYDYAVGLIKDGKAYVDDLTPPEMREYRGLTEAGKNSPYRDRSV EENLDLFTRMKNGEFPDGSKTLRLKIDMASGNINMRDPVIYRIRRAHHNTGDKWCITYMYDYTHCISDAIEGITH SLCTLEFEAHRPLYDCVLDNIPAPHATRPRQYEFSTRLELLYTTISKRKLNLQVVEKHVSGWDDPRMPTISGMRRRG YTPEGLRLFAKRAGISKENIVDMSVLEGAIREELNSAPRLMAVLNPLKVTLTNFETGRQSRRAAFHPNHEEMG EREVPIISQTIYIEADDAENPPKGFKRILPGGEVRLRHGYVIKCEVVKDEAGNVVELKCSIDHDTLGNPEGRKV KGVIIHWVSAEHAIEIKVRLYDRLFTVERPDVARGEDGEYLPFTDFLNPESVKEITAYAEPAKDLPAESRWQFERI GYFVTDRKDHGKDTPVFNRTVTLKDSWQPK
149	1572	MLEAYRKAARAALGIPALPLNAQQADLVELLKSPPAGEGEFLVELLAHRVPPGVDDAAKVKASFLAAVAEGSA SSPLISPEYATELLGTMGGYNIHALIELLDDDKLASIAAKGLKHTLLMFDSFHDVQEKAEKGNKYAQEVLQSWAD AEWFASRAKVPEKITVTVFKVDGETNTDDLSPAPDAWSRPDIPLHALAMLKNPRDGITPDKPGEVGPICKLLEELKA KGHPVAVYVGDVVGTSRKSATNSVIWHTGEDI PFVPNKRFGGVCGLGGKIAPIFNTQEDSGALPIEVDVSALKMG DVVDILPYEGKIVKNGETVAEFELKSQVLLDEVQAGGRINLIIGRGLTAKAREALKLPASTAFRLPOAPAESKAGF TLAQKMGVGRACGLPEGQGVPRGTCEPRMTTVGSQDTPGPMTRDELKDLACLGSADMVMQSFCHTAAYPKPVVDK THKELPAFISTRGGVSLRPGDGVHWSLNRLLLPDVTGTGGDSHTRFPIGIFSPAGSGLVAFAAATGVMPLDMPES VLVRFSGLKQPGVTLRDLVNAIPLYAIKQGLLTVAKAGKKNIFSGRILEIEGLPDLKVEQAFELTDASAERSAAG TVKLNKEPII EYMKSNNVLMKNMIANGYQDPRTLERRIKAMEKWLANPELLEADKDAEYAAVIEINMDDIKEPIIA CPNDPDDVCFMSERSGTIDEVFIGSCMTNIGHFRAASKLLEGKADTPVRLWIAPPTKMDAKQLSDEGHYGVLGRA GARMEMPGCSLCMGNQAQVREGATVMSTSTRNFPNRLGKNTFVYLGSAELAAICSKLGKIPTVEEYQANIGIINEQ GDKIYRYMNFNEIDSYNEVAETVNV
150	1574	MQVYYDKDADLSLIKGTVAIIGYGSQGHAAANLKDSGVNVVIGLRQGSWKKAEAAAGHVKTVAEATKEADVVM LLLPEDETMPAVYHAEVTANLKEGATLAFAGFNVHYNQIVPRADLDVIMVAPKPGPHTVRSEYKRGGGVPSLIAVY QDNSGKAKDIALSYAAANGGTKGGVIETTFREETETDLFGEQAVLCGGVVELIKAGFETLFEAGYAPEMAYFECLH EMKLIVDLIFEGGIAMNYSISNNAEYGEYVTGPEVNVASSKEAMRNALKRIQTGEYAKMFIQEGNVNYSMTARR RLNADHQVEKVGAQLRAMPPWITANKLVDQDKN
151	1577	MQLSGAQII VQSLKAEVEYVFGYPGGAVIEIYDALFQLNKFHILTRHEQAAVHAADAYARVSGKVGVALVTSGP GVTNALTGIATAYTDSIPMVVISGQVGNLIGTDAFQEVDTVGITRCPVKHNFVTDINELAETIKKAFQIAASGR PGPVVVDVPKDVTOAMAKFSYPQEDIFIRSYQPVVQGHIGQIKAVQMLASAKRFVVYFGGGVVLGNASEELTRFV RMTGAPCTGTMLGLGAYPSGDRQFLGMLGMHGTYEANLAMQNDVVLAVGARFDDRVVSVPSKFFEKAKKVIHIDV DPSSIAKRVKVDIPIVGDVKNVLSEMVWLQKQESVPSSEDALGKWKTI EEWRSRDCLWFNDNGSEI IKPQYVIQKL AEITGNSAIITSDVGQHQMFQAQYYPFERPRQWLNSSGLGTMGVGLPYAIGAKLAAPDQDVFICITGDGSIQMNIOE LSTCFQYRIPVNVITLNNGYLGMVRQWQEIYYGGRESEYTFDSLPDFVKLA EAYGHIGIRVDKSDVEGALLEALN QKDRLVFIDFLTDQKQNVMPMVGNGKGLDEMVLPPHMRADGKA
152	1581	MKKLNTQSPDFQAGLKALLAFETAQN PETERIVADICADVQKRGAALIEYTNKFDQTNAKSIDDLILTQADLNAA FERIPNDVQTAQTARRVESYHQKQMESWYTDDEGTLGQOITPLDRVGIYVPGKKAAYPSSVIMNAMPAHVA GVKEIIMVPTPKGERNDIVLAAAYVAGTVKFTVVGGAQAVAAALAYGTETIPQVDKITGPGNAFVAAAKRRVFGV GIDMVAGPSEILVIADGTTADWVAMDLSQAQEHDEIAQAILIGTSQAYLDEVEAAMDRLIETMPRRDIEASLGN RGAMILAKDLDEACEIANYISPEHLELSVENPQEWAKKIRHAGAIMGRYTGESLGDYCAPNHVLPSTRTARFSS PLGTYYDFQKRSSLIQVSEQAQKLGETASVLAHGESLTAHARA EFRMK
153	1583	MNLTKTQRQLHNFLLAQEAGSLSKLAKLCGYRTPVALYKLRLEKQAEPPDARGIRPSLMAKLEKHTGKPKGWL DRKHRETRVPETAESTGTAEQTIAETASAAGCRSVTVNRNTCETQITVSINLDGSGKSRLDTGVPFLEHMDQIA RHGMIDIDISCKGDLHIDDHHTAEDIGITLGOAIRQALGDKKIRRYGHSYVPLDEALS RVVIDLSGRPGLVYNIE FTRALIGRFDVDLFEEFFHGI VNHSMMLTHIDNLSGKNAHQAEVTFKAFGRALRMAVEHDPRMAGQTPSTKGTLT A
154	1595	MKTSELROKFLKFFETKGHTVVRSSSLVPHDDPTLLFTNAGMNQFKDVLGFDKRPYSRATTAQKCVRAGGKHNDL ENVGYTARHHTFFEMGNFSFGDYFKRAIHFAWEFTLSPWLNIPKDKLLATVYAEDEAYNIWLNEIGMPSERI VRIGDNKGAKYASDNFWMGDTGPCGPCSEIFYDHGEEIWGGIPGSPEEDGDRWIEIWNVCFMQRNDEQGNMNP PKPSVDTGMLERIAAVMQHVHSNYEIDLFDQLLKAVARETAGPFRMEEPSLKVIAHDIRSCSFLIADGVLP SNEG RGYVLRRIIRRAVRHGYKLGQSKPFFHKLVLADLVKEMGGAYPELKEKQAEALKEESRFAQTLETGMALLENA LVKGGKTLGGEIIFKLYDTYGFYPDLTADICRERNIEPDEAGFEREMEAQRARARAAQSFKANAQLPYDQDTEFK GYSERQTESKVLALYKDGQVNELNEGDSGAVVIDFTPFYAESGGQVGDVGYIFSGENRFEVRDQKIKAAVFGQF GVQTSGRLLKVGDSVTAKVDDEIRNANMRNHSATHLMHKALRDVLGRHVEQKGS LVTAESTRFDISHPQAVTAEIEA EVERRVNEAILANVAVNAAIMSMEDAQKTGAMMLFGEKYGEVRLQMGGFSTELCGGTHVSRTGDIGLFI ISEG GIAAGVRRIEAITGLNALKWQAEQERLVKDI I AETKAQTEKDLAKIQAGAAHAKALEKELARAKAE LAVHAGAKL

		LDDAKDLGAAKLVAAQIEADAAALREIVTDLTGKSDNAVILLAAVNDGKVSCLAGVSKPLTGKVKAGDLVKFAAEQ VGGKGGRPDLAQAGGTADKLPVLDSDVWDVGAKLIV
155	1604	MELVFIHQSEWNAKNLFTGWRDVKLSEQGLAEAAAAGKKLKENGVEFDIAFTSVLTRAIKTCNIVLEESDQLFV PQIKTWRLNERHYGQLQGLDKKQTAEQYGDQVRIWRRSYDTLPPLLDKDDFSAHKDRRYAHLPAVVPDGENLK VTLERVLPFWEDQIAPAILSGKRVLVAAHGNSLRALAKHIEGISEDIMGLEIPTGQPLVYKLDNKLKIEKFYL
156	1621	MGIYDFQMKDAEGNAVDLSGYRGKVLIVNTATRCGLTPQYEALQKLYAQYTAEGLEILDFPCNQFREQAPESSGE IAQVCMKFGTKFKIFDKIEVNGANTAPLYAYLKSVPQDKGNHLFKDFVLKLAALGEKRDEGDIKWNFTKFLVNR DGEVVERFAPSVTPEEIEADIRALL
157	1636	LLFSSLLFSSLLFSSLLFSSAAQASESSRSPYYQADLAYAAERITHDYPKPTGTDKDKISTVSDYFRNIRAH YHPRVSVGYDFGWRIAADYASYRKWNKYSVNIKKGRETQDNREELKTENQENGSEHAASSLGLSAIYDFKLN KFDKFKPIGARVAYGHVKHGVHSHVETKTTIVTSKPAATSPQGGPIET
158	1640	MSLYPIYNFSAGPAVLPEAVLETARQEMLDYNGTGFPVMAMSHRSEMFLSILHHAEQDLRQLKVPDNYKILFQ GATTQFNMAAMNLAHGFRITADAVVTGNWSRIAYEQMSRLTDEIRLAAHGGEQFDYLDLPPVETWDVAPDSAFVHF AVNETVNGLQYREVPCLSEGMPPLVCDMSSEILSREFDVADYGLIYAGAQNIGPAGVTVIVREDLLERCNDIP DVFNYSRSHINRDGMYNTPSTYAIYMSGLVFRWLQAQGGVKKIEAVNRLKAQTLYETIDGSDGFYINRIRPNARSKM NVVFTQDDEELDRRFVLEAELQGLCLLKGYKTVGGMRASTYNAMPLEGVRALADFMDFQRRYG
159	1642	MSREMLQALAEALASEKNVDAEVVFQALEFALSTAAKKKADREHMDVRVQINRDTGEYQTFRRWLIVADEDYTPDV EKTIEEIQEEIPGTTIQIGEYEEQLPNEGFGROAAQTAKQIILQIRDAEREQNLNEFLAVKEDIVSGTVKRVER HGIIVEVVAGKLDALIPRQMI PRENFRSGDRIRALFLRVEEIGNTRKQVILSRTSGDFLVKLYANEVPEIADGM LEIRAVARDPGQRAKVAVKANDQRIDPQGTICIGVRGSRVNAVSNELSGERIDVVLWSPEPAQFVMSALSPAESRI VIDEDKHAVDVIAEDQLALAI GRGGQNVRLASDLTGWQLNIMTSAEADERNAEADAIRLEFMDHLNVDEETADV LVQEGFATLEEVAYVPAELLAIEGFDEEIVDMLNRNARDAILTMAIAAEKLGESDDMRNLEGIDADMLRSLAE AGITTRDDLAEALAVDELIEITGVNEETAKAVILTAREHWFTEDK
160	1655	MVHIMFNQAAQELTTIRDLRFVSRFNEAGLFFGHGTNAHDEAAYLILHTLNLPLDMLAPYLDKLLAEKEEV LAVIERRAVEHIPAAYLTHQAWGEFDFYVDERVIIPRSFIYELGDGLRPWIEYDELVNALDLCTGSGCLAIQM AHHPDAQIDAVDVSLDALEVAGINVEDYGLEERIRLIHTDLFEGLEGTYDLIVSNPPYVDAESVELLP EYLHEP ELALGSGADGLDATRQILLNAKFLNPKGVLLVEIGHNRDVL EAYPELPFTWLETSGGDGFVLLTREQLLGE
161	1684	MLDIQLLRNSTAAVAERLARRGYDFTARFDTLEERRKSQVKTEELQASRNSISKQIGALKGQKGHEEAQAMNQ VAQIKTDLEQAAADLDAVQKELDAWLLSIPNLPHESVPAGKDETENVEVRKVGTPREFDFEIKDHVDLGEPLGLDF EGGAKLSGARFTVMRGQIARLHRLAQAQFMDLTHLQHGTYEHTPYIYVDDTLQGTGQLPKFAEDLFHVTRGGDET KTTQYLIPTAEVTLTNTVADSIIPSEQLPLKLTAHSPCFRSEAGSYGKDRGLIRQHQQFDKVMVQIVHPEKSYET LEEMVGHAEENILKALELPYRVITLCTGDMGFGAAKTYDLEVWVPAQNTYREISSCSNCEDFQARRLKARFKDENGK NRLVHTLNGSGLAVGRTLAVLENHQNADGSINIPALQPYMGVAKLEVK
162	1691	MARHVWQAGRFEIGLDPKIMGIVNLTDPDSFSDGGVYSQNAQTALAHAEQLLKEGADILDIGGESTRSGADYVSPE EEWARVEPVLAEVAGWGPISLDTRRTVIMEKALALGGIDIINDVAALNDEGAVELLARQADTGICLMHMQGLPKT MQINPKYQDVVGEVARYLKARSAECIAAGIAPQRIILDPGFGSGFGKPLQHNIALMRHLP ELMATGFP LLIGVSR KSTIGELTGEANAAERVHGSVAALASVARGAQIVRVHDVKATADALKVWEALGINL
163	1710	MTDLNTLFANLKQRNPQEPFHQAVEEVFMSLDPLFLAKNPKYTQSSLLERIVEPERVVMFRVTWQDDKGOVQVNRG YRVQMSSAIGPYKGGRLRFPHTVDLGLKFLAFEQVFNALTTLPMTGGGKGSDFDPKGKSDAEVMRFCQAFMTELY RHIGADTDVPAGDIGVGGREIGYLFQYKKIRNEFSSVLTKGLEWGGSLIRPEATGYGCYVFAQAMLQTRNDSFE GKRVLISGSGNVAAQYAAEKAIQLGAKVLTVSDSNGFVLFDPDSGMTAQLAALIELKEVRREVRATYAKEQGLQYFE KQKPWGVAEIALPCATQNELDEEAAKTL LANGCYVVAEGANMPSTLGAVEQFIKAGILYAPGKASNAGGVATSGL EMSQNAIRLSWTREEDQRLFGIMQSIHESCLKYKGVGDTVNYVNGANIAGFVKVADAMLAQGF
164	1716	MAFYAFKAMRAAALAAVALVSSCGKGGDAAQGGQAGREAPAPVVGVTVHPQTVALTVELPGRLESRLTADVR AQVGGIIQKRLFQEGSYVRAGQPLYQIDSSYEALESARAQLATAQATLAKADADLARYKPLVAAEAVSRQYEDA AVTAKRSAEAGVKAAQAAIKSAGISLNRSRITAPISGFIGQSKVSEGTLLNAGDATVLTATIRQTNPMYVNVQTOSAS EVMKLRRQIAEGKLLAADGVIAVGIKEDDGTVPYPEKGRLLFADPAVNESTGQITLRAAVPNDQNILMPGLYVRVLM DQVAVDNAFVVPQAVTRGAKDTVMIVNAQGGMEPREVTVAQQGTNWI VTSGLKDGDKVVVEGISIAGITGAKKV TPKEWASSENQAAAPQSGVQTASEAKPASEAK
165	1796	MIMAKKISILVGLRRASFARKVALNAAEMFPEGWQAEIVEIGHLPLYNFYDDPAVEDVPLPESYAFRETIKAS DGILFVTSENNRTIPACLKNAVDIGSKPNADVAWKNKPAGIISHSVGKMGYSSQKNRLALS YFDMPTVGQPEVF LGNSPTLFDENGKLIDSARDFVQSYINQFVGLIERNK
166	1809	MNNLIKINLLPYREEMNKRQOQFKTLMYGAULTGVAAVAATYLFIDNMINNQSERNTLLETSHIHLDTLSEIQK LKQEKDAFLIKKNKIEELQLKRLQAAILDSLNEAVPGSTYLTSLDAVTADS YRLSGRTSSDNRAAMMRAMPNTG IFKQPELLSIKKNNSHQEFTLQATLQPIVKAESKENPASGNAQEAN
167	1810	MASKSSKTNLDLNNLHLLNLPARLFALLAVAVALGLGYAGLFKSQMESLEEYEAKETELKNYKQKSIDAASLNN LRDELASIRSAFDIMLKQLPTDAEIPNLVQELHQAGSSNGLRLDSVMPQPPVDDGPIKRLPYSISITGNYEQISQF

		TRDVGSLSRITITLESKIAQSPENGGNPDGKSSILNLSAIATTYQAKSVEELAAEAAQNAEQK
168	1811	MKHYALLISFLALSACSQGSDELNEWMAQTRREAKAEIIPFQAPTLVPAPVYSPQLTGPNADFRRMETDKKGEN APDTRIKETLEKFSLENMRVYGILKSGQKVSFGIEAEGYVYTVGVGNLYGQNYGRIESITDDSIVLNELIEDSTG NWVSRKAELLNNSDKNTEQAAAPAAEQN
169	1812	MNTKLTKIISGLFVATAAFQTASAGNITDIKVSSLPNKQKIVKVSFDKEIVNPTGFVTSSPARIALDFEQTGISMD QQVLEYADPLLSKISAAQNSSRARLVNLNKPQYNTVEVRGNKVWIFINESDDTVSAPARPAVKAAPAAAPAKQQA APSTKSAVSVSEPFPAKQQAAPFTESVSVSAPFSPAKQQAASAKQQAAPAKQQAAPAKQQAAPAKQTN DFRKDGKNAGIIELAALGFAGQPDISOQHDHIIVTLKNHTLPTTLQSRSLDVADFTKPVQKVTLLKRLNNDTQLIITT AGNWELVNKSAAPGYFTFQVLPKKQNLSEGGVNNAPKFTTGRKISLDFQDVEIRTILOILAKESGMNIVASDSVNG KMTLSLKDVWDQALDLVMQARNLDMRQQGNIVNIAPRDELLAKDKALLQAEKDIADLGALYSQNFQKYNVEEF RSILRLDNADTTGNRNTLISGRGSLIDPATNTLIVTDTRSVIEKFRKLIDELDPAAQVMIEARIVEAADGFSRD LGVKFGATGKKLKNDSAFGWGVNSGFGDDKWAETKINLPITAAANSISLVRAISSGALNLSASELSKTK TLANPRVLTQNRKEAKIESGYEIPFTVTSIANGGSSTNTELKKAVALGLTVPNTIPDQGIIMTVKINKDSPAQCAS GNQTLICISTKNLNTQAMVENGGLTIVGGIYEEDNGNTLTQVPLLDIPVIGNLFKTRGKKTDRRELLIFITPRIM GTAGNSLRY
170	1835	MSVIQDLQSRGLIAQTTDIEALDALLNEQKIALYCGFDPTADSLHIGHLLPVLALRRFQOAGHTPIALVGGATGMI GDPSFKAAERSLNSAETVAGWVESIRNQLTPFLSFEQGNAAIMANNADWFGSMNCLDFLRDIGHKFSVNAMLNKES VKQRI DRDAGISFTEFAYSLLQGYDFAELNKRHGALEIGGSDQWGNITAGIDLTRRLHQKQVFGTLPLVTKSD GTFKFGTEGGAVWLNAKKTSFYQFYQFWLKVADADVYKFLKYFTLSIEEIDAIEAKDKASGSKPEAQRI LAEEMT RLIHGEEALAAQRISESLEFAEDQSSLTESDFEQALDGLPAFEVSDGINVVEALVKTGLASSNKEARGFVNSKAV LLNGKPAEANNPNHAAERPDDACLLNGEHKRFKGYTILRRGRNHALLVWK
171	1838	MSLCKGIVGLPNVGKSTLFNALTQSGIEAANYPFCTIEPNVGIVEVPDPRMAELAKIVNPQKMQPAIVEFVDIAGL VAGASKGEGLNQFLANIRETDAIVNVVRCFDDNIVHVAGRVPIADIETIGTELALADLASVEKAIVREEKRAR SGDKDAQKLDLCKKLLPHLDEGKPVRSFGLDAERAMLKPLFLLTAKPAMYGVNVAEDGFENNPHLDRLKELAAK ENAPVVAVCAAMESEIAELEDEKAEFLAEMGLEEPGLNRLIRAGYDLLGLQTYFTAGVKEVRAWTIHKGDTPAQ AGVIHTDFERGFIRAQVISYDDFVSLGGEAKAKEAGKMRVEGKEYVVQDQDVMHFLFNV
172	1843	MPTQSKHASINIGLIQAREALMTQFRPILNOANITDQQRRIIRLLAENGLDFQDLANQACILRPSLTGILTRLEK AGLVRLKPSNDQRRVFLKLTAEGEKLYEEIGEEDERYDAIEEVLGREKMLLLKDLLAEALAKIEDALNS
173	1849	MSTPALLVLADGSVFHGTSGYEGSTSGEVVNTSMTGYQEILTDPSTYCKQIVTLTYPHIGNGTNAEEDERSVY AAGLIIRDPLLSNFRASESLHDYLVNRKTVAIADITRRLTTLREKGAQGGAILTGADATIEKAQELIAAFGS MVGKDLAKEVSTETETEWTEGEWALGKGFVTPDEQPYHVVAIDFGVKTNIRMLASRGCRITVVPQTSBEDVLAL NPDGVFLSNGPDPECTYAIKAVQKLIESGKPIFGICLGHQLISLAIGAKTLKMRFSHHGANHPVQDLDSGKVI TSQNHGFAVDADTLPANARITHKSLFDNTLQGIELTDKPVFCFQGHPEASPGPDVGYLFDKFIGNMKAakra
174	1854	MSIPINFNNLKYLLNDMRNKNRIIEAFPFNYNQRYAVILTRYKPEPRPDDYAQAKLEFFNLNSENSIFAYADFY EVHFKSATDFINFFKINVQAGAAKIREIQSFSNLFADFIPTQTKKLDIIYKKIVATRLPENSPNTIYCYDVRRN GDKAGKPNRRSVENSEKAKILRPELYEKFADSNSYFFSDNPSEKTDAEIIEVNTNRQ
175	1855	MPKRTDLKSILIGAGPIVIGQACEFDYSQAACKALREEGYKVLVNSNPATIMTDPEMADVTYIEPIMWQTVK IIAKERPDAILPTMGQTALNCALDLARNGVLAKYNVELIGATEDAIDKAEDRGRFKEAMEKIGLSCPKSFVCHTM NEALAAEQVGFPTLIRPSFTMGSGGGIAYNKDEFLAICERGFASPTHELLIEQSVLGNKEYEMEVRDKNDNC IIICSIENFDPMGVHTGDSITVAPAQTLDKEQYQIMRNASLAVLREIGVDTGGSNVQFAVNPANGEMIVIEPNRV SRSSALASKATGFPIAKVAKLAVGFTLDELNDITGGKTPASFEPSIDYVVTKIPRAFEKFPAAADRLLTQMK VGEVMAMGRTIQESFQKALRGLETGLCGFNPRSEDKAEIRRELANPGPERMLFVADAFRAGFTLEEIHEICAIDPW FLAQIEDLMKEEKAVSDGILSDLDFAALRLKRGFSKRLAQLLNVSEKEVREHRYALKLHPVYKRVDTCAAEFA TETAYLYSTYEECESRPSDRKKVMILGGGNRIGQGIEFDYCCVHAALALRESGFETIMVNCNPETVSTDFDTS RLYFEPLTLEDVLEIVRTENPWGVIVHYGGQTPKLKLANALVENGVNIIGTSADSIDAAEDRERFQKVLNDLGLRQ PNRIAHNEEALVKAEEIGYPLVVRPSYVLGGRAMQVVSAAELQKYMREAVQVSEDSPLLDFFLNNAIEVDVDC VSDGKDVVIGGIMQHVEQAGIHSGDSCSLPPYSLSEEIQDEIRROTAMAYALGVVGLMNVQFAVQDGVVFLV NPRASRTVPFVSKATGVPLAKVGARCMAGISLKEQGEVEVVPDFYAVKEAVFPFIKFPQVDTILGPEMRSTGEVM GVGASFEAYYKAQLGAGERLNPTGKIILSVREEDKERVITAKNFQVLGYGICATRGTAQYLTEHGLIVQTI PEGRPHIGDALKNGEIALVVNTVSSDPQSVSDSHIIRQSALQQRVPQYTTTAGGEAMSEGAKSRLHGVYSVQELH GRLKNRN
176	1859	MDISDFDFTLPEKLIHQHPPEVRGSSRLVALPDMPLQDRVFGDLPDYVEAGDVLVFNNTKVMKARLFGQKDSGGR IEALIERVLDNHTALAHIRSSKSPKPGMGLVFEGGIRAVTVGREGELFCLRFEGGETVYELLEQNGHLPLPPYIER AADADDDSRQTVYAKYQGAAPTAGLHFTTELLHRLKDKGAVTAEVTLHVAGAGTFQPVVDKIEEHKMHSEWFE VPSETAAAVEAAKARGNKVWAVGTTSMRALESAAARATGRLKAGQGDITFITPGYRFNVVDRLVTNFHLPKSTLLM LVSAFSGMGHIRAAYRHAVEREYRFFSYGDAMVLGRNEGVVR
177	1861	MLKKVLIANRGEIALRVLACREMGIATVAHVHSEADKDSLHVKLADESVCIGPAASAQSYLNPVPAIAAAEVSCAD AVHPGYGLAENADFAEQVEQSFTFIGPKPDTIRLMGDKVSAKHAMIAAGVPCVPGSDGALPDDGEEILKIADKV

		GYPV I I K A S G G G G R G M R V V E K K E D L L Q S V E M T K A E G A A F G N P M V M E R Y L Q R P R H V E I Q V I A D E H G N A I Y L A E R D C S L Q R R H Q V I E E A P A F F I T E K E R A K I G N A C A D A C K R I G Y R G A G T F E F L Y E D G E F F F I E M N T R V Q V E H P V T E L I T G V D I V Q E Q L R I A A G L P L O Y K Q K D I Q V E G H A F E C R I N A E D P Y N F I P S P G L I E S C H L P G G F G I R V D S H I Y Q G Y R I P P Y Y D S L I G K I C V H G K T R E Q A M A K M R V A L A E L A V T G I K T N T P L H R D L F A D A G F Q K G G V S I H Y L E H W L E D R K A K Q D K
178	1862	M P Y Q Q I T V N V N D A V A E R L A D A L M E H G A L S A A I E D A Y A G T Q N E Q A I F G E P G M P A E Q I W Q Q S K V I A L F G E H D E A A A I Q T A T Q E C G L K D L A Y T G E T I E D Q D W R L T Q S Q F D P I R I S D R L W I T P S W H E V P E G S A V N L R L D P G L A F G T G S H P T T R L C L K W L D T Q L K N G E S V L D Y G C G S G I L T A A L K L G A G F A V G V D I D E Q A V R A G K D N A A Q N N V D A Q F F L P D G L P Q G Q F D V V V A N I L A N P L R M L G E M L A A R T K Q G G R I V L S G L L D E Q A E E L G G I Y S Q W F D L D P A E T E E G W A R L S G V K R
179	1864	M N R N E I L F D R A K A I I P G G V N S P V R A F G S V G G V P R F I K K A E G A Y V W D E N G T R Y T D Y V G S W G P A I V G H A H P E V V E T V C E A A L G G L S F G A P T E G E I V I A E E I A K I M P S V E R L R L V S S G T E A T M T A I R L A R G F T G R D K I I K F E G C Y H G H S D S L L V K A G S G L L T F G N P S S A G V P A D F T K H T L V L E Y N N I A Q L E E A F A Q S G N E I A C V I V E P F V G N M N L V R P T E A F V K A L R G L T E K Y G A V L I Y D E V M T G F R V A L G G A Q S L H G I T P D L T M G K V I G G G M P L A A F G G R K D I M E C I S P L G G V Y Q A G T L S G N P I A V A A G L K T L E I I Q R E G F Y E N L T A R T E Q L V Q G F R T A A D A A G I E F T A D S V G G M F G L Y F A A H A P R N Y A D M A R S N I E G F K Q F F H G M L D R N V A F G P S A Y E A G F V S A A H T P E L I D E T V A V A V E V F K A M A E
180	1903	M T L A E F W P L C L R R L H D M L P Q G Q F A Q W I A P L T V G E E G G V W V V Y G K N Q F A C N M L K S Q F A G K I E A V R E L A A G R S A F V F K P G E G V R Y E M A A V E G A V E P A E P S L H A V S E G M P V Q E V L L D E L P S E E P V K P A A S K T A A D I L A E R M K N L P H E P R Q A A G S A S R P E S V A V A K A R T D V Q R D A E E A R Y E Q T N L S P D Y T F D T L V E G K N R L A A A A Q A I A E S P G Q S Y N P F F L Y G S T G L G K T H L V Q A V G N E L L K N R P D A K V R Y M H S D D Y I R S F M K A V R N N T Y D V F K Q Q Y K Y D L L I I D D I Q I K G K D R T M E E F F Y L Y N H F H N E K K Q L I L T C D V L P A K I E G M D D R L K S R F S W G L T L E L P P E M R I A I L Q K K A E A G I S I E D E A A L F I A N L I R S N V R E L E G A F N R V G A S S R F M N R P V I D I D L A R T A L Q D I I A E K H K V I T A D I I D A V A K Y Y R I K I S D V L G K K R T R N I A R P R Q V A M S L T K E L T T L S L P S I G D S F G G R D H T T V M H G I R A V A K L R E E D P E L A Q D Y E K L L I L I Q N
181	1920	M T Q D K I L I L D F G S Q V T Q L I A R R V R E A H V Y C E L H S F D M P L D E I K A F N P K G I I L S G G P N S V Y E S D Y Q A D T G I F D L G I P V L G I C Y G M Q F M A H H L G G E V Q P G N Q R E F G Y A Q V K T I D S E L T R G I Q D G E P N T L D V M W S H G D K V S K L P D G F A V I G N T P S C P I A M M E N A E K Q F Y G I Q F H P E V T H T K Q G R A L L N R F V L D I C G A Q P G W T M P N Y I E E A V A K I R E Q V G S D E V I L G L S G G V D S S V A A A L I H R A I G D Q L T C V F V D H G L L R L N E S K M V M D M F A R N L G V K V I H V D A E G Q F M A K L A G V T D P E K K R K I I G A E F I E V F D A E E K L T N A K W L A Q G T I Y P D V I E S A G A K T K K A H A I K S H N V G G L P E N M K L K L L E P L R D L F K D E V R E L G V A L G L P R E M V Y R H P F P G P L G V R I L G E V K E Y A D L R Q A D D I F I Q E L R N T T D E N G T S W Y D L T S Q A F A V F L P V K S V G V M G D G R T Y D Y V I A L R A V I T S D F M T A H W A E L P Y S L L G K V S N R I I N E V K G I N R V V Y D V S G K P P A T I E W E
182	1921	M S T Q D L N G K I A L V T G A S R G I G A A I A D T L A A A G A K V I G T A T S E S G A A I S E R L A Q W G G E G R V L N S A E P E T I E S L I A D I E K A F G K L D I L V N N A G I T R D N L M R M K E E W D D I M Q V N L K S V F R A S K A V L R G M M K Q R S G R I N I T S V V G V M G N A G Q T N Y A A A K A G L I G F S K S M A R E V G S R G I T V N C V A P G F I D T M T R A L P E E T R Q T F T A Q T A L G R F G D A Q D I A D A V L F L A S D Q A K Y I T G Q T L H V N G G M L M P
183	1930	M M T Q T L L I E L L T E E L P P K A L N N L G N H F A S V A E G L E K A Q L V D G A A E F T A Y A S P R L A V Q V K N V K A V Q A D Q K I V K K G P A V A N A M K D G A P T K A L E G F A R G A G A K I E D L T I V H D G K Q D V Y A Y E V Q I G K P L G G L E D I I N Q A V K K L P I P K V M R W G S S T F T F V R P V H G L V L H G G D I V N V S V L G L Q S G N K T L G H R F L S D G E I T I E N A D S Y A A Q M R E Q K V V A S F A E R K A A I Q T V L E G Q A R R L N A T A A D E A L L D E V T A L V E W P V V L E A G F E E H F L A V P Q E C L I L T M Q Q N K Y F P L L D Q N G K L M N R F L L V S N L Q T E D P S H I I Q G N E R V L R A R L S D A E F F Y K Q D Q K A T L E S R L P K L T N V V Y H N K I G S Q A E R I E R L Q S I A A H I A K A L G A D A A A A E A R L A K A D L V T E M V G E F P E L Q G T M G K Y A R L D G E T E E I T E A V E Q H Y Q P R F A G D N L P E G K I A A A V A L A D K L E T L V G I W G I G L I P T G D K D P Y A L R R A A L G I L R M L M Q Y G L D V N E L I Q T A F N S F P Q G L L N E K T P S E T A D F M Q A R L A V L L Q N D Y P Q D I V A A V L A K Q P R R L D D L T A K L Q A V A A F K Q L P E A A L A A A N K R V Q N L L K K A D A E L G A V N E S L L Q Q D E E K A L F A A A Q G L Q P K I A A A V A E G N F Q T A L S E L A S V K P Q V D A F D G V M V M A E D A A V K Q N R L N L N R L A E Q M N A V A D I A L L G E
184	1934	M S Q G K I V Q I I G A V V D V E F P R D M I P R V Y D A L K L D E N G L T L E V Q Q L L G D G V V R A I A M G S S D G L K R G M T V S N T G A P I T V P V G K G T L G R I V D V L G T P V D E A G P I D T D K S R A I H Q A A P K F D E L S S T E L L E T G I K V I D L L C P F A K G G K V L F G G A G V G K T V N M E L I N N I A K A H S G L S V F A G V G E R T R E G N D F Y H E M K D S N V L D K V A M V Y G Q M N E P P G N R L R V A L T G L T M A E Y F R D E K D E N G K G R D V L F F V D N I Y R Y T L A G T E V S A L L G R M P S A V G Y O P T L A E M G R L Q E R I T S T Q T G S I T S I Q A V Y V P A D D L T D P S P A T T F A H L D A T V V L S R D I A S L G I Y P A V D P L D S T S R Q L D P M V L G Q E H Y D V A R G V Q S T L Q Y K E L R D I I A I L G M D E L S D E D K L T V M R A R K I Q R F L S Q P F H V A E V F T G S P G K Y A L R D T I A G F K A I L N G E Y D H L P E Q A F Y M V G S I E E A V E K A K T L N
185	1936	M Q L N P A E I S D L I K A K I E N L S V N A E V R T C G T V I S V T D G I V R I H G L S D A M Q G E M L E F P G N T F G L A M N L E R D S V G A V V L G E Y E H I K E G D T V T C T G R I L E V P V G R E L V G R V V D A L G R P I D G K G P I N T T L A P I E K I A P G V I A R K S V D Q P M Q T G L K A I D S M V P V G R G Q R E L I I G D R Q T G T A V A L D A I V N Q K G T G V I C I Y V A I G Q K A S S I A N V V R K L E H G A M E H T I V V A A T A S E A A L Q Y I A P Y S G C T M G E F F R D R G E D A L I V Y D D L S K Q A V A Y R Q I S L L L R R P P G R E A Y P G D V F Y L H S R L L E R A A R V N E H E V E K L T N G E V K G K T G S L T A L P I I E T Q A G D V S A F V P T N V I S I T D G Q I F L E T D L F N A G I R P A I N A G I S V S R V G G A A Q T K V I K L G G G I R L A L A Q Y R E L A A F S Q F A S D L D E A T R K Q L E H G E V V T E L M K Q K Q F S T L N T A E M A L T L W A I N N G S Y S D V P V A K A L A F E S E F L S F V R T Q H P E V L E A V N A S G A M S D E S E K T L E A A M K S F K S S Y A Q A
186	1937	M A E F A T I A R P Y A K A L F G L A Q E K N Q I E S W L G G L E K L A A V V Q E G K V A S L I D R P E T N A S E K A D I L I D L V G L K D K E L K N F V I V L A G Q K R L S I L P E V Y A Q Y Q D L T L S F N H I K S A V I Y S A Y P L T D K Q V G E L V Q M L N K R F D S E L K I S V E I E P E L I G G I K

		VEVGQVLDLSVQGLSALYTTMTN
187	1938	MNINATLEAQIIVFFGLVWFTMKFVWPPIAKALDERAAKVAEGLAAAEERGKSDFEQAEKKVAELLAEGRNQVSEMV ANAEKRAAKIVEEAEQASSEAARIAAQAKADVEQELFRARESREQVAVLAVKGAESILRSEVDASKHAKLLDTL KQEL
188	1953	MMTLYSGITCPSHRCRFVLYEKGMDFEIKDVDIYNKPEDLAVMNPYNQVPVLVERDLVLHESNIINEYIDERFPH PQLMPGDPVMRGRRLVLYRMEKELFNHVQVLENPAATNKEQAKAREAINGLTMLAPSFSSKYILGEDFSMIDV ALAPLLWRLDHYDVKLGKSAAPLLKYAERIFQREAFTEALTPAEKAMRK
189	1966	MSPSPFIEMKDVAFAFYGRDPIILKNINFSIPQGNFAVMGGSGSGKTTLMRLITGQIRPQSGQVLEIGRDLAGFSAD ELYEHRRRMGVLFQHGALFTDLSVFDNIAFPMRELTRLPEAVIRDLVLLKLNAGVLRGVENLMPSELSSGMSRRVA LARTIALDPEIMLYDEPTFGLDPIISLGVIHLISRVNKALRSTSIMVTHDIEKSLEIVDQVIFLAHGEIMFSGSPQ EMRELDSPWVRQFVGGGLADGPVAYRYPAQTSLOQDILLG
190	1968	MKOLAMYINGRFENDFNGEWRDVLNPSTEEAIAREPKGGKADVDRAVAAAQAPOWERLPAVERGAYLRKIAQGI RERADELTDITVAEGGKTKDLARVEVMFTADYLDYQAEWARRYEGEIIQSDRPRENILLFKRPLGVIAGILPWNFP FFLIARKMGPALVTGNTIVVKPSSVTPINCHIFAEIVDAVGLPAGVFNVNPGAEIGNALSHPQVDMVSLTGSV EAGRQVMEASANTKVSLELGGKAPAVLKDADLDLAVKSILASRVGNTGOICNCAERVYVHSSSLKDAFIEKMTA AMKGVRYGNPAEAEAGALEMGPLIEERAVKAVAEKVERAVKQGAQLVCGGKRAEGRGYFFETPLTDDNSMDIMK EETFGPVLPSAFDITLDQVIALANDCEFLTSSVYTTNLNEAFYVTRRLQFGETYINRENFEAMQGFHAGWKKSGI GGADGKHGLEEYLQTQVVYLETDI
191	1982	MSNRPTLLLDVGSSSYLYRAYHAMQNLTA PDGAPTALYGVNLMLRRLRSEYPHDYCAVVFDAKGNFRHQMFEEY KATRPMPDDLRFQAEALPDLVRLTGWPVLVIGQVEADDVIGTLAKQGAHGLRVI VSTGDKDMAQLVDERVTLVN TMSSETLDIEGVKAKFGVRPDQIRDYLA LMGDKVDNVPVGEKCGPKTAVKWLEAYGSLAGVMEHASEIKGKVGENL QAALPQLPLSYDLVTIKTDVDLHAE LSGIESLRRTTPKWAQLVDFKRWGFTWLKEASNMNTGSTDDLFGSDS IGEQAALNAEMPFEKQAEKATAPEKLDYQAVTTEAQAALLDKLSRADTIGIDTETSTSLDAMNASLVGISIAFQAG EAVYIPVGHSLTAAPEQLDLQDVLGRKPLGNPALKKIGQNLKYDQHV FANYGIALNGIAGDAMLASYIIESHLG HGLDELSERWLGETITYESLCGKGAQKQIFADVAIGQATEYAAQDADFALRLEAHLRAQMDEKQLEMYEKMELPV AQVLFEMERNVQIDRAELARQSAELGAELMKLEQAYAAAGQPFNLNSPKQLQEILFDKMGIPTKGLKKTAKGGI STNEAVLEQLAPDYPLPKIILQNRSLAKLKSTYTDKLPESISPKDGRVHTTYAQAVAITGRLASNNPNLQNIPIRT EEGRKVRRAFTAPQGSVIVSADYSQIELRIMAHLSGDKTLIAAFQNGEDVHRRATAAEVFGTAPENVSSQRRYAKS INFGLIYGMGQYGLAKSLGIDNLSAKNFIDRYFARYPGVAEYMORTKEQAAAQGYVETLFGRRLLYLPDIRNKNANA RAGAERAAINAPMQGTASDLIKRAMIDVSRWLSECEASPWDELLQSKLIMQVHDELVLLEVETELDFVKEKLPQIM AKVDGGGLDVLPLVAE VGVGENWEEAH
192	1996	MSVVLPLRGVTALSDFRVEKLLQKAAALGLPEVKLSSEFWYFVGSEKALDAATVEKLOALLAAQSVEQTPKAREGL HLFLVTPRLGTISPWASKATNIAENCGLAGIERIERGMVWLEGRLNDEQKQQAALLHDMRTESVLPDFQTASKL FHHLESETFSGVDVLGGKKEALVKANTEMGLALSAD EIDYLVENYQALQRNPSDVELMMFAQANSEHCRHKIFNAD FILNGEKQPKSLFGMIRDTHNAHPEGTVVAYKDNSSVIEGAKIERFYPNAENQGYRFHEEDTHIMKVETHNHPT AIAPFAGAATGAGGEIRDEGATGKGSRPKAGLTGFTVSNLNIPLDKQPWEQDYGKPEHISSPLDIMIEGPIGGAAF NNEFGRPNLLGYFRTFEEKFDGQVRGYHKPIMIAGGLGSIQAQQTHKDEIPEGALLIQLGGPGMLIGLGGGAASSM DTGTNDASLDNSVQRGNPEIERAQEVIDRCWQLGGKNPIISIHVAGAGLSNAFPELVNDARRGAVFKLREVPL EEHGLNPLQIWCNESQERYVLSILEKDLDAFRAICERERCPFAVVGATDDGHLKVRDDL FANNPVDLPLNVLLGK LPKTRTDKTVAPSKKPFHAGDIDITEAAYRVLRLPAVAAKNFLITIGDRSVGG LTHRDQMVGYQTPVADCAVTM MGFNTYRGEAMSMGEKPTVALFDAPASGRMCVGEAITNIAAVNIGDIGNIKLSANWMAACNNEGEDEKLYRTVEAV SKACQALDLSIPVGKDSLMTKTVWQDGEKKSVVSPSLIISAFAPVKDVRKTVPTELKNVEDSVLLFVLDLFGKA RMGGSFAFGQVYNMMSGDAPDLDDTGR LKAFYSVIQQLVAENKLLAYHDSRGGFLFVLMFAFAGRCGLDIDLNL LAQTFITNHTALSQSLRTEEVKALAEWQETIARTLFNEELGAVIQVRKQDVADIINLFYQQQLHHNVFEIGTLTDE NTLIIRDGQTHLISDNLIKLQQTWQETSHQIQLRDN PACADSEFALIGDNERSALFADV KFDVNEDIAAPFINS AKPKIAILREQGVNGQIEMAAAFTRAGFDAYDVHMSDL MAGRIHLADFKMLAACGGFSYGDVLGAGEGWAKSILFH PALRDQFAAFFADPDITLGLVCNGCQMVSNLAEIIPGTAGWPKFKRNLSEQFEARLSMVHVPKSASLILNEMQSS LPVVVSHGEGRADFALHGGNISADLGIALQYIDQONQVTQTYPLNPNGSPQGIAGVTNADGRITIMPHPERVYRA AQMSWKPEGWTELSGWYRLFAGARKALG
193	2000	MNQTA INRADVRTRFIFDDMPVRGLHVRLENVQHI VVKQKNYPAAIRRALGELLAAGVLLSGNLKNEGTLIVQVQG RGR LKMLVAEASDRTVRATARWDETA EADDES LGDLLGEGGVFVLT LQPKDGEPWQGVVPLEGGGIAQMLVNYM KRSEQLDTHIVLSASDEAAGLLVQRLPEEVLDEEAEWHVSTLARTLTA EELAGLDAQHVLYRLFHETPPRVFEPE TFEFSTCSR GKVS DMLMLLGEEVGVVVEQGSIEVDCDFCHSKYVFDETDVNALFGEDVVGVAKGLPRHTVQ
194	2039	MKKSIALTLAALPVAAMADVTLGYTIKAGVETSRSVFHQNGQVTEVTTATGIVDLGSKIGFKGQEDLGNGLKAIW QVEQKASIAGTDSGWNRSFISGLKGGFGKLVRGLNSVLKDTGDINPWSKSDYLGVNKIAEPEARLISVRYDSP EFAGLSGSVQYALNDNAGRHNSES YHAGFNKNGGFFVQYGGAYKRHHQVQEGLENI EKYQIHLRVSGYDNDALYAS VAVQQQDAKLTDASNSHNSQTEVAATLAYRFGNVTPRVSYAHGFKGLVDDADIGNEYDQVVVGA EYDFSKRTSALV SAGWLQEGKGENKFVATAGGVGLRHKF
195	2057	MKTFSAPHEVKREWFVIDAQDKVLGRVAAEVASRLRGKHKPEYTPHVDTGDIYIIVINADKLVRTGAKFEDKKYFR

		HSGFPGGIYERTFREMEOEQFPGRALEQAVKGMPLPKGPLGYAMIKKLKVYAGAEHAHAQAQPKVLELK
196	2079	MKVGVFGWRGMVGSVLMQRMKEENDFAHIPEAFFFTTSNVGGAAPDFGQAAKTLLDANNVLAELAKMDIIVTCQGGD YTKSVFQALRDSGWNGYWI DAASSLRMKDDAIIVLDPVNRDVLNGLKNGVKNYIGGNCTVSLMLMALGGLFQNDL VEWATSMTYQAASGAGAKNMRELISGMGAHVHAQVADALADPAGSILDIDRKVSDFLRSEDYPKANFGVPLAGSLIP WIDVDLGNQSKKEWKGGVETNKILGRSDNPTVIDGLCVRVGAMRCHSQAITLKLKDLVPSEIETILAGANDWVK VIPNEKEASIHETPAKVTGTLSPVVGRIKLGMGGEYISAFITVGDQLLWGAAEPLRRVLRIVLGSL
197	2086	MKFIDEAKIEVAAGKGGNGATSFRREKFVPRGGPDGGDGGKGSVWAEADENTNTLVEYRFVKRYQAKNGEKGHGS DRYGAGADDIVLKMFPVGTILIRDLDTGETVADLTTHGQVRVCLAKGGKGLGNIHFKSSVNRAKQSTPGEEGEARSL QLELKVLAADVGLLGMNAGKSTLITAVSAARPKIANYPFTTLHPNLGVVRI DENHSFVMADI PGLIEGAEGAGLG HRLFKHLSRTGLLLHVVDLAPFDETVNPAAEALAI INELRKYDEELYGKPRWLVLNKLMDLDEEEAQTRTAAFLEA VGWDYPKPDDRFDQFDMETPRLFQISALTHQGTQELVHQINQYLTEKKRIEAEKAEKAAANVEIEEQPKTDTGV FKPE
198	2101	MSQITMRQMI EAGVHFGHQTRFWNPMAQYIFGARNKIHI VNLKTLPMFQDAQEAVRRLVANKGTVLVFGTKRQA RDI IREEATRAGMPFVDYRWLGMLTNYKTVPKQSIKRLEEKTAALENAAESGFSKKEILEMQRDVEKLESLGGIK NMKGLPDAIFVIDTGYQKGTILVEAEKLGIPVIAVVDNTNNSPDGVKYVIPGNDDSAKAILYCRGIADAVLEGKNQA LQETVAAAQEA AAAE
199	2102	MAEITAKMVA DLRAATGLGMECKKALVEAEGNFDKAEELRIKSGAKAGKLAGRTAAEGVLAYAINGNVGALVEV NCETDFVAKDAGFVEFANFVAKTAAEKKPASVEELSELVEAERKAI IAKLGENMSVRRFQVIDTANQLVAYIHGAL ATEGVLVEYKGSSEVDARKIGMHIVAAPQCVSAEVAETVEKERHIYTEQAIASGKPADIAAKMVEGRIRKFLAE ITLNGQAFVMNPQDTVAQFSKENGTEVISFVRKYVG DGIEKKAVDYAAEVA AAAK
200	2103	MTQQIKYKRVLLKLSGESLMGSDPFGINHDTIVQTVGEIAEVVKMGVQGVIVVGGGNI FRGVSQAQGSMDRATADY MGMATVMNALALKDAFETLGIKARVQSALSMQQAETIYARPKAIQYLEEGKVVI FAAGTGNPFTTDTAAALRGA EMNCDVMLKATNVDGVYTADPKKDP SATRYETITFDEALLKNLKVMDATAFALCRERKLNIVVFGIAKEGSLKRV TGEDEGTLVHC
201	2129	MSQNHTILQSLPVGQKVGI AFSGGLDTSALLWMLKLGALPYAYTANLGQPDDEDDYNAIPKKAMEYGAENARLIDC RAQLAHEGIAAIQCGAFHVSTGGIAYFNTTPLGRAVTGTMVSAMKEDDVNIWGDGSTYKGNDIERYRYGLLTNP ALKIYKPWLDQQFIDELGGRHEMSEFLIANGFNYKMSVEKAYSTDSNMLGATHEAKDLEFLNSGIKIVKPI MGVA WDENVEVSPEEVSVRFEEGVPVALNGKEYADPVELLEANRIGGRHGLGMSDQIENRI IEAKSRGIYEAPGMALEH IAYERLVTGIHNEDTIEQYRINGRLRLGRLLYQGRWFSQALMLRETAQRWVAKAVTGEVTTLELRGNDYSILNTES PNLTYYPERLSMEKVEDAAFTPLDRIGQLTMRNLDTITRVLKGIYSQSGLLSLGEKSVLPQLGNKQ
202	2138	MAEAVINQLNNTLNDLEKRSIEDIRVYMDYQGGKDRLEEVIGLSEDPELWNDPKRAQEI GKERKILEGIVLTLDNIA SGIEDNRMLIEMTVEENDEEGFAAVQEDVAGLEKQMADELFKRMFNQPADPNNC FIDITAGAGGTEADWAGMLFR MYSRYAERKGFRIEILEEDDGEIAGINRATIRVEGEYAYGLLRTETGVHRLVRYSPFDSNNKRHTSFASVFVYPEI DDSI EIEINPADLRIDTYRASGAGGQHINKTDSAVRI THEPTGIVVQCQNDRSQHANKAAAMEMLKSKLYELEM RNEEKQALEEGKSDVGWGSQIRSYVLDSSRIKDLRTGYEVGNTKAVLDGDLGDFIEASLKQGV
203	2154	MSVLIIVEHDNKQLNP TTLHAVTAAAKLGKVDLLVAGNGASAVVEFAKQVAGVKVLVADAAHYAEGLAELAPLV VKLAADYRYVAATATTFGKNLLPRVAALLDVPQISDLTEIVDNTTFVRPIYAGNAFETVQADSEKLVLTFRATVFD AVAAQGGNAEIVINVEATPAQNLRSFVNRQLSHSDRPELTQAKVIVSGGRALGSAEFNEVLTPADVLGAAGASR AAVDAEYAPNDAQVGQTGKVVPQLYFAIGISGAIQHVAGMQDSKVIVAINKDADAPIFNVDYGLVGLDFEIVPQ LTEVLKN
204	2155	MKALVAVKRVVDYNVKVRVKADGSDVDIGNVKMSMNPFEI AVEEAVRLKEAGKVSEIVAVSLGEKKCEETLRTAL AMGADRAIHVETDTKLES LAVAKLLKAVADKENPQIFFLGKQAI DDDANQVAQMLAALLNAAQGT FASKVQIEGDE VQIVREIDGGEETIALKLPAVISADLRLNEPRFVKLPNIMAAKKKPLEKLT PDDLADISPRLKT VKFAEPKARQA GVKVASVAELVEKLKNEAKVI
205	2159	MSIKVAINGFGRIGRLALRQIEKAHDIEVVAVNDLTPAEMLLHLFKYDSTQGRFQGTAEKDDAI VVNGKEIKVFA NPNPEELPWGELGVDVILECTGFFTNTKAEAHIRAGARKVVISAPGGNDVKTVVYGVNQDILDGSETVIS AASCT TNCLAPMAAVLQKEFGVVEGLMTTIIHAYTGDQNTLDAPHRKGD LRRARAAALNIPVNSTGAAKAIGLVIPELNGKL DGSQQRVPVASGSLTELVSILERPVTKEEINAAKMAAASESYGYNEDQIVSSDVVGIEYSGSLFDATQTRVMTVGGK QLVKTVAWYDNEMSYTCQLVRTLEYFAGKI
206	1126 1164	MKTVSTAVVLAAA VSLTGCATESSRSLEVEKVASINTQYHGVRTPI SVGTFDNRSSFQKGI FSDGEDRLGSQAKT ILVTHLQQTNRFNVLNRTNLNALKQESGISGKAHNLKGADYVVTGDDVTEFGRRDVG DQLFGILGRGKSQIAYAKV ALNIVNVNTSEIVYSAQGAGEYALS NREIIGFGGTSGYDATLNGKVLDAIREAVNSLVQAVDNGAWQPNR
207	1799	MSEYLFSES VSEGHDPKVADQVSDAILDAILAQDPKARVAAETLVNTGLCVLAGEITTTAQVDYIKVARETIKRI GYNSSELGFDANGCAVG VYDQOSPDI AQGVNEGEGIDL NQAGDQGLMFGYACDETPTLMPFAIYYSHRLMQRS ELRKDGRLPWL RPDAKAQLTVVYDSETGKVKRIDTVVLSTQHDPSIAYEELKNAVIEHIIKPVLPSELLTDETKYL INPTGRFVIGGPQGDCLGTGRKII VDTYGGAAHPHGGGAFSGKDP SKVDRSAAYACRYVAKNIVAAGLATQCQIQVS YAI GVAEPTSISIDTFGTGKISEEKLIALVREHFDLRPKGIVQMLDLLRPIYSKSAAYGHFGREEPEFTWERTDKA

		AALRAAAGL
208	0110	MALLNILQYPDERLHTVAKPVEQVDERIRKLIADMFETMYESRGIGLAATQVDVHERVVMDLTEDRSEPRVFINP VIVEKDGETTYEEGCLSVPGIYDVTTRAERVKVEALNEKGEKFTLEADGLLAICVQHELDHLMGIVFVERLSQLKQ GRIKTKLKKRQKHTI
209	0957	MSQYDVVVIGAGPGGYVAAIRAAQLGFKTACVDAGVKNAGNAPALGGTCLNVGCIPSKALLOSSEHFHAAQHEFAE HGITVGDVVKFDDAKMIERKDAIVTKLTGGVKFLFQKNKVTSLFGTASFAGKNGDAYQIEVDNKGEKTVIEAKHVIV ATGSVPRPLPQVAIDNVNVLNEGALNLTEVPAKLGIVIGSGVIGLEMGSVWNRVGAETVILEAAPTFLAAADQQA KEAFKYFTKEQGLSIELGVKIGDIKSEKGVSVAYETAAGEAKTEVFDKLIVAIGRIPNTKGLNAEAVGLEKDERG FIKVDGECRTNLPNVWAIGDVVRGPMALHAKASDEGVAVAERIAQOKPHIDFNNVPFVIYTDPEIAWVGKTEEQLKA EGVEYKKGTSFGFANGRALAMGAKGTVKVLADAKTDRIILGVHMIQPVVSELVTEGVTALEFFASSEDARIHAH PTLSEVVHEAALADKRALHG
210	1011	MMIEKSISIVDGKEYSVFAVSHEFRYTFDEPILVADLISSLKAYETLTSSYLPAILNQLFDVKIQKIKVAVSEIER GSFLEKLIENLFFKDEDAYNEFLKIRKFLGTENQDGSINMSKIIMFAMTLLGVGAGYLLFKNPPQEQQAITNNI VTVINADSSVALDGEHLVSVVKEVTGSSKQKTAENNAKVYAPASKNNGSITLGTDDVRIEPAVQQTATLPKQVDL RDTPLTEDYTDIDVQIRATDRDKNSGWYVIDQIVPSRVLELPEDIDLNLRLANNATIRANVTVEFDLKQNGSRKP KKIILTSLSST
211	1055	MFSKSVTLAQYDPDLAAIAQEDQROQDHVELIASENYVSCAVMDAQGSQLTNKYAEQYPGKRYGGCEYVDIVEQ LAIDRVKELFGAAYANVQPHSGSQANQAVYASVLKPGDTILGMSLAHGGHLLTHGASVNIISGLYNAVITYGLDENEV LDYAEVERLALAHKPKMIVAGASAYALQIDWAKFREIADKVGAYLFVDMAHYAGLVAGGEYPNPVPCDFVTTTTH KTLRGPGRGVILCRDNTEKALNSSIFPSLQGGPLMHVIAAKAVAFKEALQPEFKQYAKQVKINAAAMAEELVKRG LRIVSGRTESHVFLVDLQPMKITGKAAEALGKAHITVNKNAPNDPEKPFVTSIGRIGSAAMTTRGFNEADARVL ANLVADVLSNPEDEANLAKVRKQVTALCNKYPVYGA
212	1437	MSARENILAKLKKADALPMEEPVFDYREMGVSWGSEVERLKHWAAMRAVKTEIYVWTKSNWQVFEAAEGKG LKNILLPLATEHGOIARAALADSNIPIAFEREIDTWKTEFFTNIDAGFSGAQCGIARTGTLMLFSSPEEPRTLSL VPPVHFCFLDTSKMYNEFHNAVEGEKLVENGMPNTNVFLISGPSKTADIQLTLAYGAHGPRDLVILAILPDHISPAD LEENA
213	1460	MSLNKVLIGRLGRDPEVRYMPNGEAVCNFSVATSETWNRDNRQORVERTEWHNITMYRKLAEIAGQYLKKGGLVYL EGRIQSRKYQKGDIERTAYDIVANEMKMLGGRNENSGGAPYEEGYQSQAAYQRPAAQSSRQPASDAPSHPOEAPA APRRQVPVAAAPVEDIDDDIPF
214	1540	MNKKHGFPLTLTALAIAATAFPAYAAQAGGATPDAAQTOSLKEITVRAAKVGRRSKEATGLGKIVKTSETLNKEQVL GIRDLTRYDPGVAVVEQNGASGGYSIRGVDKNRAVSVGDGVAQIQAFVTVQGSLSGYGGRGGSGAINEIYEYENIST VEIDKGAGSSDHGSGALGGAFAFRTKEAADLISDGKSWGIIQAKTAYGSKNRQFMKSLGAGFSKDGWEGLLIRTERQ GRETRPHGDIADGVEYIGIDRLDAFRQTYDIKRTREPFVSVEGERESKPVAKLAGYKYLNNQLNRWVKERIEQNO PLSAEEEAQVREAAQARHENLSAQAYTGGGRILPDPMDYRSGSWLAKLGYRFGGRHYVGGVFEDTKORYDIRDMTEK QYYGTDEAEKFRDKSGVYDGDGDFRDLGYFVFNIEEWKGDKNLVRGIGLKYSRTKFIDEHRRRRRMLLYRYENEAY SDNWADKAVLSFDKQGVATDNNTLKLNCAYVPAVDKSCRASADKPYSYDSSDRFHYREQHNVNLASFEXSLKNKWT KHHLLTGFGYDASKAISREQLSHNAARISESTGFENNQDKYLLGKPEVVEGSGVCIETLRSRKCVPKINGSN IHISLNDRFSIGKYFDFSLGGYDRKNFTTSEELVRSRGYVDRSWNSGILFKPNRHFSVSYRASSGFRTPSFQELF GIDIYHDYPKGWQRPALKSEKAAANREIGLQWKDGFGLFESSFRNRYTDMIAVADHKTLPNQAGQLTEIDIRDY NAQNMSLQGVNLLGKIDWNGVYKLPGLYTTLAYNRIKPKSVSNRPGLSLRSYALDAVQPSRYVLGFGYDQPEGK WCANIMLTYSKGNPDELAYLAGDQKRYSTKRASSSWSTADVSAYLNLKKRLTLRAAIYNIGNRYVTWESLRQTA ESTANRHGGDSNYGRYAAPGRNFSLALEMKF
215	1554	MTKFIFVTGGVSSSLGKGIAAASIAALESRLNVTMLKLDPIYINVDPGTMSPFQHGVEFVTDGAEITDLGLHYE RFIDSTMTRRNSFSTGQYENVIAKERRGDLGGTVQVIPHITDEIKRRIHEGAAGYDVAIVEIGGTVDGIESLPIF LEAIRQMRSQGLRNNTLFAHLSYVPYIAAAGEIKTKPTQHTVKEMLSIGLQPDILICRMDRTPADERRKIALFCN VEERAIVGSYDVDSIYECPEMLHDQIDNITEQLQLNVQQADLTAWKKIVHAIQNPKHTVKIAMVGKYVDLTESY KSLIEALKHAGIHTETDVQITFVDSENIEKNKGDVSMKMDAILVPGGFGSRGVEGKIAAVRYARENVPYLGIC LGMQIALIEYARDVAGLKGANSTFEDLKCAAPVVALIDEWQTADGVSVEVTRDESTDLGGTMRLLGAQVEVLKAGSLAA KIYGSCHIRERHRYEVNNYVPTLEQAGLVIGGVSAGRERLVEITELPNHPWFACQFHPEFTSNPRKGHPFLT AFVKAALNNKKA
216	1576	MRHILSVLIENESGAMSRVVLFSARDYNIDSLAVAPTEDKTLRMTIVTHGDEQVIEQITKQLNKLIEVIKVVDL NESRFVERELMLVKVRAAGKDRDEFRLTEIYRGSIIDVTDRTSYTIEITGSTDKLDSFLETVGRAQILETVRTGAA GIGRGERILKI
217	1808	MRLFKSLKNPKKTDKALPKKSSGLNNRAAIGIDIDQHSIKMVQLSGRSLNQIQLEKYVIAKLPKNIIQGNKVQNYD QLVTTYLQQAAYAKLTSCKNIIASVPQNLATIEQLTYTDKDAELDLQGFVESSISEVSSISLEEANYDYQVLSQSA GEAVLAVASRKDEIEPLIDAFNAAGMKLSALDVIDFGQYNAYALWINHFAPELAAEKVAIFGVYAAQTYALVIQDG KILYKQETSVSEEQLNQLIQRTYQVTEKEAEIINSPOKPSDYQESVANYFNQIQEIQRVLQFYITQTADDMT DIKHILLTGEAARQEGIAQTVASQTNADVQCVPARYFADNLKTDKQGFELDAPTLTRAFLAVRGL